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Dear Mr. Chambers:

Enclosed is a copy of the February Ground Water Sampling Results Report for the BN/Livingston site. Please call if you have any questions.

Sincerely,

John Wadhams (by DM)

John Wadhams, Project Coordinator
BN/Livingston Site

"AN EQUAL OPPORTUNITY EMPLOYER"

FEBRUARY 1990 MONTHLY
GROUND WATER SAMPLING RESULTS
LIVINGSTON RAIL YARD
LIVINGSTON, MONTANA

Submitted To:

Montana Department of Health
and Environmental Sciences
Cogswell Building
Helena, Montana 59620

Submitted By:

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Submittal Date:

June 28, 1990

ENVIROCON, INC.

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1.0 INTRODUCTION

Burlington Northern Railroad (BNRR), through its contractor Envirocon, Inc., (Envirocon) completed the fourth quarterly ground water sampling round at the Livingston rail yard during February 17 through March 6, 1990. A total of 50 ground water samples were taken from 37 wells. As shown on Table 1.0, this includes samples from 31 monitoring wells, 4 municipal water wells, and 2 private water wells within and around the rail yard. The remaining 13 samples were QA/QC checks. Figure 1.0 shows the locations of all wells sampled during the February 1990 quarterly sample round.

All samples were analyzed for volatile organic compounds (VOCs) by EPA Method 524.2. In addition, 37 samples were analyzed for the following:

Total Petroleum Hydrocarbons (TPH)	EPA Method 418.1
Semivolatile Organic Compounds	EPA Method 625
PCBs and Pesticides	EPA Method 608
Dissolved Metals	several methods

All analyses were performed at Energy Laboratories, Inc. (ELI) in Billings, Montana. Four split samples, taken by the Montana Department of Health and Environmental Sciences (MDHES), were analyzed at the state laboratory in Helena, Montana.

Interpretations presented in this report are necessarily based on information available at the time of publication. Interpretations may change when further data is available.

TABLE 1.0

CORRELATION OF WELL AND SAMPLE NUMBERS
FEBRUARY - 1990

SAMPLE NUMBER	WELL NUMBER	ANALYTICAL METHOD*	SAMPLE METHOD**	SAMPLE DATE
140101-242	TRIP BLANK	524.2	N/A	2/17/90
140101-243	B STREET	FULL SUITE	N/A	2/17/90
140101-244	LG-10	FULL SUITE	NDBP	2/17/90
140101-245	LS-11	FULL SUITE	DBP	2/17/90
140101-246	L-37-5	FULL SUITE	DBP	2/17/90
140101-247	DUP OF L-37-5	FULL SUITE	DBP	2/17/90
140101-248	L-88-11	FULL SUITE	DBP	2/17/90
140101-249	L-37-1	FULL SUITE	DBP	2/17/90
140101-250	L-88-9	FULL SUITE	DBP	2/17/90
140101-252	LS-7	FULL SUITE	DBP	2/18/90
140101-253	L-37-4	FULL SUITE	DBP	2/18/90
140101-254	#4	FULL SUITE	NDBP	2/18/90
140101-255	#2	FULL SUITE	NDBP	2/18/90
140101-256	EQUIPMENT BLANK	524.2	N/A	2/18/90
140101-257	#6	FULL SUITE	DBP	2/18/90
140101-258	#7	FULL SUITE	DBP	2/18/90
140101-259	LS-8	FULL SUITE	DBP	2/18/90
140101-260	L-88-10	FULL SUITE	DBP	2/19/90
140101-261	DUPUCATE OF L-88-10	FULL SUITE	DBP	2/19/90
140101-263	L-37-3	FULL SUITE	DBP	2/18/90
140101-264	L-37-2	FULL SUITE	DBP	2/18/90
140101-265	L-88-12	FULL SUITE	DBP	2/19/90
140101-266	POTW	FULL SUITE	TAP	2/20/90
140101-267	#5	FULL SUITE	NDBP	2/20/90
140101-268	GEYSER TC	FULL SUITE	TAP	2/20/90
140101-269	L STREET	FULL SUITE	N/A	2/20/90
140101-270	Q STREET	FULL SUITE	TAP	2/20/90
140101-271	RAINBOW MOTEL	FULL SUITE	N/A	2/20/90
140101-272	89-2	FULL SUITE	NDBP	2/21/90
140101-273	89-9	FULL SUITE	NDBP	2/21/90
140101-274	89-3	FULL SUITE	NDBP	2/21/90
140101-275	TRIP BLANK	524.2	N/A	2/21/90
140101-277	L-87-9	FULL SUITE	DBP	3/1/90
140101-278	L-37-7	FULL SUITE	DBP	3/1/90
140101-279	89-1	FULL SUITE	NDBP	3/1/90
140101-280	EQUIPMENT BLANK	524.2	N/A	3/1/90
140101-281	89-7	FULL SUITE	NDBP	3/1/90
140101-282	DUP OF 89-7	FULL SUITE	NDBP	3/1/90
140101-283	TRIP BLANK	524.2	N/A	3/1/90
140101-284	TRIP BLANK	524.2	N/A	3/1/90
140101-285	89-4	FULL SUITE	NDBP	3/2/90
140101-286	EQUIPMENT BLANK	FULL SUITE	N/A	3/2/90
140101-287	89-5	FULL SUITE	NDBP	3/2/90
140101-290	TRIP BLANK	524.2	N/A	3/2/90
140101-291	90-1A	524.1	NDBP	3/6/90
140101-292	90-1B	FULL SUITE	NDBP	3/6/90
140101-293	DUP OF 90-1B	524.2	NDBP	3/6/90
140101-294	EQUIPMENT BLANK	524.2	N/A	3/6/90
140101-295	90-1C	524.2	NDBP	3/6/90
140101-311	90-2A	524.2	NDBP	3/19/90
140101-314	90-2B	524.2	NDBP	3/19/90

NOTE: *Refers to EPA analytical method
FULL SUITE = 524.2, 625, 418.1, 8015, and Dissolved Metals

**DBP - Dedicated bladder pump
NDBP - Non-dedicated bladder pump
N/A - Not applicable

2.0 SUMMARY

Ground water in the alluvial aquifer underlying the Livingston rail yard contains a plume of dissolved VOCs, a plume of diesel fuel on and above the water table, and localized above-background concentrations of dissolved petroleum hydrocarbons. The VOC and diesel plumes which originate from the rail yard result from different rail yard sources. The VOC and diesel plumes which originate from the rail yard have overlapping boundaries.

Potential sources of VOCs within the rail yard, identified from ground water sampling events, include the shop complex, waste water drain lines, the Waste Water Treatment Plant (WWTP) area, the WWTP sump, and the API separator and overflow pond.

The largest VOC concentrations are present in an area extending from Well 89-4 southeast to the WWTP area. Reported concentrations from wells on the rail yard range from nondetectable to 1,240 parts per billion (ppb) total chlorinated ethenes [tetrachloroethene (PCE), trichloroethene (TCE), and dichloroethene (DCE)]. No significant stratification of VOCs in the alluvial aquifer is indicated by sample results from nested wells.

A plume of diesel fuel is present on the water table beneath the rail lines adjacent to the main shop complex and Park Street. The plume has a surface area of approximately 40 acres. February 1990 apparent free-product thicknesses range up to 1.05 feet in Wells LS-12 and LB-4.

Detectable concentrations of TPH dissolved in the ground water are generally beneath the diesel plume. TPH concentrations range up to 22.8 parts per million (ppm) reported for Well L-87-8.

3.0 RESULTS AND DISCUSSION

This section presents and provides interpretation of potentiometric measurements and sample results from the monitoring well network, city municipal water wells, and private wells tested during the February 1990 quarterly sampling round.

3.1 Potentiometric Data and Ground Water Flow Directions

Water table elevations were measured at 58 points throughout the northeast half of the city of Livingston. All measurements were taken between February 17, 1989 and March 6, 1990. Water table elevations and interpretive potentiometric contours are shown on Figure 1.0.

Water table elevations reveal northeast-directed ground water flow beneath most of the rail yard during February and early March 1990. This flow pattern is similar to the flow directions recorded during the summer and fall of 1989.

Ground water flow directions vary seasonally to a greater degree within 1,500 feet of the Yellowstone River than in other parts of the aquifer. Flow near the river shifted to a more northward direction in February 1990 than during the summer and fall of 1989. This shift is part of a seasonal change in ground water flow near the Yellowstone River. The ground water flows eastward into the river during summer and fall, and northward along the river during winter and early spring. This shift causes a seasonal north-south drift of the northern boundary of the chlorinated ethene plume.

3.2 Water Quality

Water quality information is separated into discussions of VOC results, semivolatile organic compound results, PCBs/pesticide results, dissolved metals results, and a discussion of the diesel plume and TPH results. Table 1.0 shows a correlation of sample numbers, well numbers, analytical methods, sample methods, and sample dates.

3.2.1 Volatile Organic Compounds

The predominant VOCs detected are the chlorinated ethenes PCE, TCE, DCE, and the chlorinated aromatics chlorobenzene and chlorotoluene. VOC concentrations in the majority of the plume are less than 200 ppb.

VOCs originating from the rail yard appear to have entered the alluvial aquifer from several sources within the rail yard. Multiple VOC sources on the rail yard have produced a low-concentration plume which contains small areas of larger concentrations near the sources. The chlorinated ethene plume extends east from the shop complex area towards the Yellowstone River.

Suspected sources within the rail yard are the shop complex area, the WWTP area, waste water drain lines, and the API separator and overflow pond area. It is not clear whether the cinder pile lagoon is a significant source of chlorinated ethenes to the alluvial aquifer. Figure 2.0 shows the extent of total chlorinated ethenes in the alluvial aquifer. This map is a composite of all chlorinated ethenes sampled from within and around the rail yard. The suspected source areas are discussed separately below.

3.2.1.1 The Shop Complex Area

Ground water sample results indicate that the shop complex area is the farthest upgradient (southwest) source of chlorinated ethenes to the alluvial aquifer. PCE is the predominant VOC detected at Well 89-3 (beneath the Electric Shop) and at Wells L-87-5 and L-88-12 (immediately downgradient from the shop complex). As shown on Table 2.0, concentrations of TCE and DCE are much smaller in comparison to PCE, and no other volatile constituents have been detected at these wells by Envirocon.

The exact locations of sources within the shop complex area and the release mechanisms are not completely understood. As shown on Figure 2.0, results from newly-installed Wells 89-3 and 89-8, beneath the Electric and Diesel Shops respectively, show detectable VOC concentrations are limited to the southern part of the shop complex. Suspected sources include the waste water drain system and associated vats and pits in both the Electric Shop and the Diesel Shop.

3.2.1.2 The Waste Water Treatment Plant Area

Ground water sample results indicate that the WWTP area, including the WWTP sump, is a source of PCE, DCE, chlorobenzene, and chlorotoluene to the alluvial aquifer. As shown on Table 2.0, concentrations of these compounds are larger in Wells L-87-2, L-88-10, and 90-1A, B, and C than in the chlorinated ethene plume upgradient at Wells L-87-5 and L-88-12.

As shown on Table 2.0, a sample from Well L-87-2, 200 feet east of the WWTP sump, contains anomalously large DCE concentrations relative to the rest of the VOC plume. The DCE concentration in Well L-87-2 is more than an order of magnitude larger than that recorded from Well 90-1B, which is less

TABLE 2.0

COMPARISON OF QUARTERLY ANALYTICAL RESULTS
PCE, TCE, AND DCE

WELL NO.	PCE (ug/l)				TCE (ug/l)				*DCE (ug/l)			
	MAY	AUG	NOV	FEB	MAY	AUG	NOV	FEB	MAY	AUG	NOV	FEB
1		0.62	0.65			<0.5	<0.5			<1.0	<1.0	
2		1.3	0.55	0.51		<0.5	<0.5	<0.5		<1.0	<1.0	<1.0
3	0.69	0.74	0.50		<0.5	<0.5	<0.5		<1.0	<1.0	<1.0	
4		<0.5		<0.5		<0.5		<0.5		<1.0		<1.0
5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0
6	7.1	4.9	3.6	1.9	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0
7	33	0.5	0.5	7.9	1.2	<0.5	<0.5	<0.5	2.9	<1.0	<1.0	<1.0
8	180	126	123		9.9	10	5.9		17	27	12	
11		<0.5	<0.5			<0.5	<0.5			<1.0	<1.0	
L-87-1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0
L-87-2			1.7	4.9			24	71			2571	1164
L-87-3	262	195	200	227	24	17	17	20	68	56	37	94
L-87-4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0
L-87-5	335	367	358	238	8.7	15	10	5.1	5.4	7.8	6.3	3.3
L-87-7		<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<1.0	<1.0	<1.0
L-87-9	58	38	86	69	7.8	11	8.8	18	3.5	9.3	7.2	12
L-88-9	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0
L-88-10	160	155	165	177	31	30	26	29	106.3	357	440.5	301.6
L-88-11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0
L-88-12	255	197	250	171	4.9	4.5	4.1	3.8	3.5	2.1	2.3	3.2
L-88-13	52	80	66	60	7.6	14	12	8.6	6.8	24	19	9.9
LS-6	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<1.0	<1.0	<1.0	
LS-7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0
LS-8	146	98	61	124	20	7.8	8.8	19	84.3	21	13	131.5
LS-11	115	23	12	88	17	30	23	17	58	122	89	81
RAINBOW	35		64	35	5.2		12	6.6	8.3		64	27
DEPUY			7.2				1.3				<1.0	
BURNS			<0.5				<0.5				<1.0	
POTW	73	46	23	68	6.9	2.1	0.69	4.5	9.2	5.5	<1.0	10
B-STR.		**	<0.5	<0.5		**	<0.5	<0.5		**	<1.0	<1.0
D-STR.		<0.5				<0.5				<1.0		
L-STR.	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0
Q-STR.	0.66	0.95	0.71	0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0
CLARENCE		<0.5	<0.5			<0.5	<0.5			<1.0	<1.0	
WERNER		<0.5	<0.5			<0.5	<0.5			<1.0	<1.0	
GEYSER TC				<0.5				<0.5				<1.0
LG-10				<0.5				<0.5				<1.0
89-1				10				0.5				<1.0
89-2				<0.5				<0.5				<1.0
89-3				272				0.56				<1.0
89-4				530				3.9				5.6
89-6				28				0.86				1.0
89-7				32				2.5				1.0
89-8				<0.5				<0.5				<1.0
90-1A				407				14				103
90-1B				385				14				86
90-1C				327				20				185.9
90-2A				251				20				120
90-2B				181				22				179.8

* Includes both cis-1,2 and trans-1,2 DCE

** Not sampled due to construction near well

than 100 feet downgradient from the WWTP sump. Total chlorinated ethene concentrations from Well L-87-2 have dropped from 2,571 ppb in November 1989 to 1,240 ppb in February 1990. This may indicate that results from Well L-87-2 are not representative of the aquifer in this area.

It is possible that VOC concentrations recorded at Well L-87-2 were affected by the installation of the dedicated sample pump through the diesel plume. The diesel plume around this well contains concentrations of DCE, chlorobenzene, and chlorotoluene in the ppm range. Measures were taken to isolate the pump from the diesel during installation, but they may not have been entirely effective. The inlet of the sample pump is 3 to 4 feet below the base of the diesel plume during the winter when the water table is low. Well 90-1B was completed with a 2.5-foot-long screen in the center of the aquifer, well below the diesel plume. The sample pump in this well did not contact any diesel fuel during installation.

3.2.1.3 The API Separator and Overflow Pond

Ground water sample results from Wells LS-8 and LS-11 indicate that the API separator and overflow pond is a source of chlorinated compounds to the alluvial aquifer. These wells show elevated DCE and chlorobenzene concentrations relative to upgradient wells. In addition, test excavations through the base of the API separator and overflow pond revealed oily leachate penetration to the water table. Soil sample results from these test excavations were reported in Envirocon's November 1989 Quarterly Ground Water Results report.

Sample results from Wells LS-8 and LS-11 have shown clear trends in chlorinated compound concentrations since May 1989; however, the trend for each of these wells is different. In Well LS-11, both DCE and chlorobenzene

concentrations increased continuously during the summer and early fall of 1989 and then declined, as shown on Tables 2.0 and 3.0. Conversely, PCE concentrations at this well decreased during the summer and fall and then increased during the winter. In contrast, PCE, TCE, DCE, and chlorobenzene concentrations at Well LS-8 decreased during the summer and fall and began to rise during the winter.

Concentration variations at Wells LS-8 and LS-11 are at least partially related to the seasonal shifts in ground water flow directions in this area. Other factors which could affect concentrations are precipitation events and the 4- to 5-foot seasonal rise and fall of the water table beneath the API separator and overflow pond. The water table rise in the spring and summer reaches the base of these pits and could mobilize chlorinated compounds into the aquifer.

3.2.1.4 The Cinder Pile Lagoon Area

It is uncertain whether the cinder pile lagoon is a significant chlorinated ethene source to the alluvial aquifer. No clear increase in chlorinated ethene concentrations is apparent in ground water downgradient from the cinder pile lagoon at Wells L-87-3 and 8.

3.2.1.5 Well L-87-7

Sample results from Well L-87-7 show the continued presence of several typical gasoline constituents. These constituents have been characteristic of samples from this well since Envirocon began sampling it in August 1989.

TABLE 3.0

COMPARISON OF QUARTERLY ANALYTICAL RESULTS
2-CHLOROTOLUENE AND CHLOROBENZENE

WELL NO.	2-CHLOROTOLUENE (ug/l)				CHLOROBENZENE (ug/l)			
	MAY	AUG	NOV	FEB	MAY	AUG	NOV	FEB
1		<1.0	<1.0			<1.0	<1.0	
2		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0
3	<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	
4		<1.0		<1.0		<1.0		<1.0
5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
8	<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	
11		<1.0	<1.0			<1.0	<1.0	
L-87-1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
L-87-2			78	39			159	96
L-87-3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
L-87-4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
L-87-5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
L-87-7		1.1	<1.0	<1.0		<1.0	<1.0	<1.0
L-87-8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
L-88-9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
L-88-10	<1.0	3.6	3.5	1.1	8.7	28	43	40
L-88-11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
L-88-12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
L-88-13	<1.0	<1.0	<1.0	<1.0	<1.0	3.6	1.9	<1.0
LS-6	<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	
LS-7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
LS-8	<1.0	<1.0	<1.0	<1.0	27	<1.0	<1.0	69
LS-11	<1.0	<1.0	<1.0	<1.0	<1.0	167	305	17
RAINBOW	<1.0		<1.0	<1.0	<1.0		3.5	<1.0
DEPUY			<1.0				<1.0	
BURNS			<1.0				<1.0	
POTW	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B-STR.		**	<1.0	<1.0		**	<1.0	<1.0
D-STR.		<1.0				<1.0		
L-STR.	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Q-STR.	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CLARENCE		<1.0	<1.0			<1.0	<1.0	
WERNER		<1.0	<1.0			<1.0	<1.0	
GEYSER TC				<1.0				<1.0
LG-10				<1.0				<1.0
89-1				<1.0				<1.0
89-2				<1.0				<1.0
89-3				<1.0				<1.0
89-4				<1.0				<1.0
89-6				<1.0				<1.0
89-7				<1.0				<1.0
89-8				<1.0				<1.0
90-1A				5.9				10
90-1B				12				8.1
90-1C				9.7				12
90-2A				<1.0				2.3
90-2B				<1.0				<1.0

** Not sampled due to construction near well

3.2.1.6 VOC Stratification Test

Two groups of nested wells were installed in February 1990 to evaluate the potential for stratification of chlorinated ethenes in the alluvial aquifer. Nested Wells 90-1-A, 90-1-B, and 90-1-C were installed immediately downgradient from the WWTP sump to investigate the potential for VOC stratification in the area with the largest VOC concentrations. Nested Wells 90-2A and 90-2B were installed in a downgradient position within the plume to evaluate potential stratification away from known sources. Each well in a nest is screened at a different level in the aquifer, so samples from each well represent concentrations within discrete vertical zones. As shown on Table 4.0, sample results reveal no evidence of significant VOC stratification at either location.

3.2.2 The Diesel Plume and TPH Concentrations

The diesel plume, shown on Figure 3.0, occupies approximately the same position as it has throughout the summer and fall of 1989. Free-product thicknesses at specific wells have varied slightly as the water table rose and fell; however, the overall shape and boundaries of the plume have remained similar. Free-product thicknesses shown for Wells L-87-2 and L-87-7 were limited by the fact that the water table was low and the tops of the dedicated sample pumps were within the diesel plume and interfered with free-product measurements. Actual product thicknesses for these wells are greater than shown on Figure 3.0.

TPH concentrations for the wells outside the diesel plume were all below 1 ppm with the exception of the new Well 89-1. TPH concentrations beneath the diesel plume ranged from 0.3 to 22.8 ppm, as shown on Table 5.0. TPH values were larger at Wells L-87-4, L-87-7, and L-87-8 during February 1990

TABLE 4.0

VOC STRATIFICATION ANALYSIS

COMPOUND	90-1A	90-1B	90-1C	90-2A	90-2B
PCE	407	385	327	251	181
TCE	14	14	20	20	22
DCE *	103	86	185.9	120	179.8
Chlorobenzene	10	8.1	12	2.3	<1.0
2-Chlorotoluene	5.9	12	9.7	<1.0	<1.0

*Note: Includes both cis- and trans-DCE

TABLE 5.0

TOTAL PETROLEUM HYDROCARBONS CONCENTRATIONS (ppm)

WELL NO.	TPH (mg/l) MAY	AUG	NOV	FEB
1		<0.1	<0.1	
2		<0.1	<0.1	<0.1
3	0.7	<0.1	<0.1	
4		<0.1		<0.1
5	2.1		<0.1	<0.1
6	0.7	<0.1	<0.1	0.1
7	0.6	0.3	<0.1	<0.1
8	3	<0.1	<0.1	
11		<0.1	0.2	
L-87-1	0.8		<0.1	<0.1
L-87-2			10.6	1.3
L-87-3	0.4	<0.1	<0.1	<0.1
L-87-4	4.4	0.3	0.9	8.1
L-87-5	0.6	<0.1	<0.5	<0.1
L-87-7		4.2	2	19.0
L-87-8	14.8	0.3	2	22.8
L-88-9	0.7	0.1	<0.1	<0.1
L-88-10	0.6	0.1	<0.1	<0.1
L-88-11	0.9	0.2	<0.1	<0.1
L-88-12	0.7	<0.1	<0.1	0.3
L-88-13	2	<0.1	0.3	<0.1
LS-6	9.9	0.2	<0.1	
LS-7	4.2	0.9	<0.1	0.3
LS-8	0.8	0.1	<0.1	0.6
LS-11	0.5	1.7	0.4	0.1
DEPUY			<0.1	
BURNS			<0.1	
RAINBOW			<0.1	<0.1
POTW			<0.1	0.3
B-STR.		**	0.1	<0.1
D-STR.		<0.1		
L-STR.		<0.1	<0.1	<0.1
Q-STR.		<0.1	<0.1	<0.1
CLARENCE		<0.1	<0.1	
WERNER		<0.1	<0.1	
GEYSER TC				<0.1
LG-10				<0.1
89-1				4.5
89-2				<0.1
89-3				<0.1
89-4				<0.1
89-6				<0.1
89-7				0.2
89-8				0.4
90-1A				
90-1B				0.4
90-1C				
90-2A				
90-2B				

because the water table was at a low stand and the inlets of the dedicated sample pumps were closer to the diesel plume.

The detection of 4.5 ppm TPH from Well 89-1 is an anomaly with respect to surrounding Wells 89-2, 7, LS-8, and LS-11. This was the first sample taken from Well 89-1. Additional samples from this well are necessary to validate the February results.

3.2.3 Semivolatile Organic Compounds

No semivolatile organic compounds (EPA Method 625 analysis) were detected at any of the monitor, private, or municipal wells sampled during the February 1990 quarterly ground water sample round.

3.2.4 PCBs/Pesticides

No PCBs or pesticides (EPA Method 608 analysis) were detected in any of the monitor, private, or municipal wells sampled during the February 1990 ground water sample round.

3.3 Results from the Livingston Municipal Water Wells

Samples were taken from the B Street, L Street, and Q Street Wells during the February 1990 quarterly sample round. The D Street Well was not operating during November 1989 and could not be sampled.

As shown on Table 2.0, no detectable VOC concentrations were found in samples from the B Street or L Street Wells. The sample from the Q Street Well contained 0.5 ppb PCE. This is at the detection limit for PCE and is

consistent with 1989 quarterly sample results from this well, which ranged from 0.66 to 0.95 ppb.

As shown on Table 5.0, no detectable TPH concentrations were found in samples from the L Street, Q Street, or B Street Wells.

No detectable semivolatile organic compounds or PCBs/pesticides were detected in any of the municipal wells sampled during the February 1990 ground water sample round.

Dissolved metals analyses indicate small dissolved arsenic concentrations at both L Street and Q Street Wells, as shown on Table 6.0. In addition, detection-limit concentrations of cadmium and lead were found in the B Street Well.

TABLE 6.0

SUMMARY OF DISSOLVED METALS - FEBRUARY 1990

WELL NO.	DISSOLVED METALS			
	ARSENIC mg/l	CADMIUM mg/l	LEAD mg/l	CHROMIUM mg/l
2	<0.005	<0.001	0.02	<0.02
4	<0.005	<0.001	0.02	<0.02
5	<0.005	<0.001	<0.01	<0.02
6	<0.005	0.004	<0.01	<0.02
7	<0.005	<0.001	<0.01	<0.02
L-87-1	<0.005	0.004	<0.01	<0.02
L-87-2	<0.005	<0.001	<0.01	<0.02
L-87-3	<0.005	<0.001	<0.01	<0.02
L-87-4	<0.005	<0.001	0.02	<0.02
L-87-5	<0.005	0.004	<0.01	<0.02
L-87-7	<0.005	<0.001	<0.01	<0.02
L-87-8	<0.005	0.001	<0..01	<0.02
L-88-9	<0.005	<0.001	0.01	<0.02
L-88-10	<0.005	<0.001	<0.01	<0.02
L-88-11	<0.005	0.003	<0.01	<0.02
L-88-12	<0.005	<0.001	<0.01	<0.02
L-88-13	<0.005	<0.001	<0.01	<0.02
LS-7	<0.005	<0.001	0.02	<0.02
LS-8	0.006	<0.001	<0.01	<0.02
LS-11	0.005	0.004	0.01	<0.02
RAINBOW	<0.005	<0.001	<0.01	<0.02
POTW	<0.005	<0.001	<0.01	<0.02
B-STR.	<0.005	0.001	0.01	<0.02
L-STR.	0.009	<0.001	<0.01	<0.02
Q-STR.	0.006	<0.001	<0.01	<0.02
GEYSER TC	0.015	<0.001	<0.01	<0.02
LG-10	<0.005	0.003	<0.01	<0.02
89-1	<0.005	<0.001	0.01	<0.02
89-2	<0.005	<0.001	<0.01	<0.02
89-3	<0.005	<0.001	<0.01	<0.02
89-4	<0.005	<0.001	<0.01	<0.02
89-6	<0.005	<0.001	<0.01	<0.02
89-7	<0.005	<0.001	<0.01	<0.02
Dup of 89-7	<0.005	<0.001	<0.01	0.03
89-8	<0.005	<0.001	<0.01	<0.02
90-1B	<0.005	<0.001	<0.01	<0.02

4.0 QA/QC RESULTS

Envirocon followed the QA/QC program outlined in Section 10.0 of the Interim Remedial Measures Work Plan (IRMWP) during the November 1989 quarterly sample round. This program includes:

Field QA/QC

- field duplicates
- MDHES splits
- trip blanks
- equipment blanks

Laboratory QA/QC

- spiked analyses
- laboratory duplicates
- EPA QA/QC samples

QA/QC samples were shipped "blind" to ELI and were analyzed by the same analytical method (EPA Method 524.2) as the field samples.

4.1 Field QA/QC

Four field duplicates, four MDHES splits, five equipment blanks, and five trip blanks were used to validate field procedures. Results of each of the QA/QC checks are discussed below.

4.1.1 Field Duplicates

Field duplicates from Wells L-88-10 (140101-261), 90-1B (140101-293), 89-7 (140101-282), and L-87-5 (140101-247) were sent blind to ELI. As shown

in Appendix A, analysis of the duplicates shows close correlation with the original samples from these wells. This indicates that field sampling/handling procedures and laboratory methods are sufficient to generate reproducible results.

4.1.2 MDHES Splits

The MDHES split samples with Envirocon at the B Street Municipal Well (140101-243) and at Wells LS-11 (140101-245), L-87-5 (140101-246) and L-88-11 (140101-248). Envirocon's samples were analyzed at ELI in Billings, Montana. The MDHES' samples were analyzed at the state laboratory in Helena, Montana.

Results of the MDHES' samples showed reasonably good correlation with Envirocon's samples. All VOC detections reported by ELI were also reported by the MDHES' laboratory. A comparison of reported concentrations on Table 7.0 shows that ELI and MDHES' results are close, considering the small VOC concentrations present. As shown on Table 7.0, ELI reported 5.2 ppb of 1,4-dichlorobenzene from Well LS-11, which was not reported by the MDHES' laboratory.

Detection levels for metals analyses differed between the two laboratories. This resulted in barium detections by the MDHES' laboratory which were smaller than ELI's detection limit. Conversely, cadmium, chromium, and arsenic below the MDHES' laboratory detection limits were reported by ELI.

TABLE 7.0

RESULTS FROM MDHES/ENVIROCON SPLIT SAMPLES FEBRUARY 1990

VOLATILE ORGANIC CONSTITUENTS (ug/l)		
WELL NO.	MDHES	ENVIROCON
B Street	N/D	N/D
LS-11	PCE - 117 TCE - 16.8 DCE (cis) - 105 DCE (trans) - 2.3 Chlorobenzene - 25.3	PCE - 88 TCE - 17 DCE (cis) - 80 DCE (trans) - 1 Chlorobenzene - 17 1,4-Dichlorobenzene - 5.2
L-87-5	PCE - 323 TCE - 4.9 DCE (cis) 2.7	PCE - 238 TCE - 5.1 DCE (cis) - 3.3
L-88-11	N/D	N/D

PCBs/PESTICIDES (ug/l)		
WELL NO.	MDHES	ENVIROCON
B Street	N/D	N/D
LS-11	N/D	N/D
L-87-5	N/D	N/D
L-88-11	N/D	N/D

METALS (mg/l)		
WELL NO.	MDHES (Total Metals)	ENVIROCON (Dissolved Metals)
B Street	Barium - .052 Cadmium - <.005 Lead - <.05	Cadmium - 0.001 Lead - 0.01 Barium - <0.1
LS-11	Barium - .080 Arsenic - <0.5 Cadmium - <.005 Chromium - <.02	Arsenic - 0.005 Cadmium - 0.004 Chromium - 0.01 Barium - <0.1
L-87-5	Barium - .067 Cadmium - <.005	Cadmium - 0.004 Barium - <0.1
L-88-11	Barium - .044 Cadmium - <.005	Cadmium - 0.003 Barium - <0.1

4.1.3 Trip Blanks

ELI reported detectable VOCs in two of the five trip blanks sent during the February 1990 sample round. This is the first time that trip blanks used during sampling operations on the rail yard have shown any detectable concentration of VOCs. Trip blanks are prepared at ELI and sent to Envirocon. They were then returned with samples from the field.

Trip Blank 140101-275 showed 11 ppb chloroform and 1.5 ppb 1,1,1-tetrachloroethane. Neither of these compounds have been detected in Envirocon ground water samples from the rail yard. Both may have been present when the trip blanks were sent from ELI.

Trip Blank 140101-284 showed 0.71 ppb PCE. PCE is a common ground water contaminant from the rail yard. It is possible that PCE was present in the trip blank when it came from ELI. It is also possible that the sample was contaminated during field sampling procedures. Envirocon's QA/QC officer will audit all sampling operations to reduce the possibility of future trip blank problems.

4.1.4 Equipment Blanks

Five equipment blanks (140101-256, -275, -280, -286, and -294) were taken through Envirocon's stainless steel bladder pump after decontamination. Decontamination consists of pumping methanol through the bladder pump followed by pumping deionized water through the pump. Four equipment blanks showed detectable concentrations of VOCs.

Chloroform was detected in Equipment Blanks 140101-256, 140101-280, 140101-286, and 140101-294. In addition, methylene chloride was detected in

Equipment Blank 140101-256. Neither of these contaminants were detected in the samples taken immediately prior to the equipment blanks and neither are known ground water contaminants on the rail yard. Envirocon interprets the chloroform to result from residual chloroform in the deionized water used during equipment decontamination. Very small concentrations of methylene chloride could have remained from the methanol used during decontamination.

ELI reported 0.5 ppb of PCE and 2.2 ppb of toluene in Equipment Blank 140101-256. Equipment Blank 140101-256 was taken after Well 2 was sampled. The sample from Well 2 contained 0.51 ppb PCE and no detectable concentration of toluene. The most probable source of the PCE detection in 140101-256 was residual PCE after decontamination. The source of the toluene is not known.

Equipment Blank 140101-286 contained 17 ppb of PCE and 1.4 ppb xylene. This equipment blank was taken after sampling Well 89-4, which contained 530 ppb of PCE but no detectable xylene concentration. PCE in the equipment blank probably resulted from residual PCE in the sample pump after decontamination. The source of the xylene is unknown.

Envirocon will install approximately seven more dedicated sample pumps in wells which will be sampled quarterly. This will reduce the amount of decontamination necessary between wells and should prevent future equipment blank problems.

4.2 Laboratory QA/QC

ELI conducted four spiked analyses, four laboratory duplicate analyses, and analyzed six sets of EPA QA/QC samples to validate laboratory procedures. ELI's QA/QC plan is on file with MDHES.

4.2.1 Spiked Analyses

Spiked analyses were conducted on Samples 140101-245 (Well LS-11), 140101-264 (Well L-87-2), 140101-280 (Well 89-1), and 140101-295 (Well 90-1C). Results of these analyses are shown in Appendix A. The percent recoveries of the test values are all within acceptable ranges. These results indicate that ELI's laboratory equipment and procedures were acceptable to provide satisfactory results.

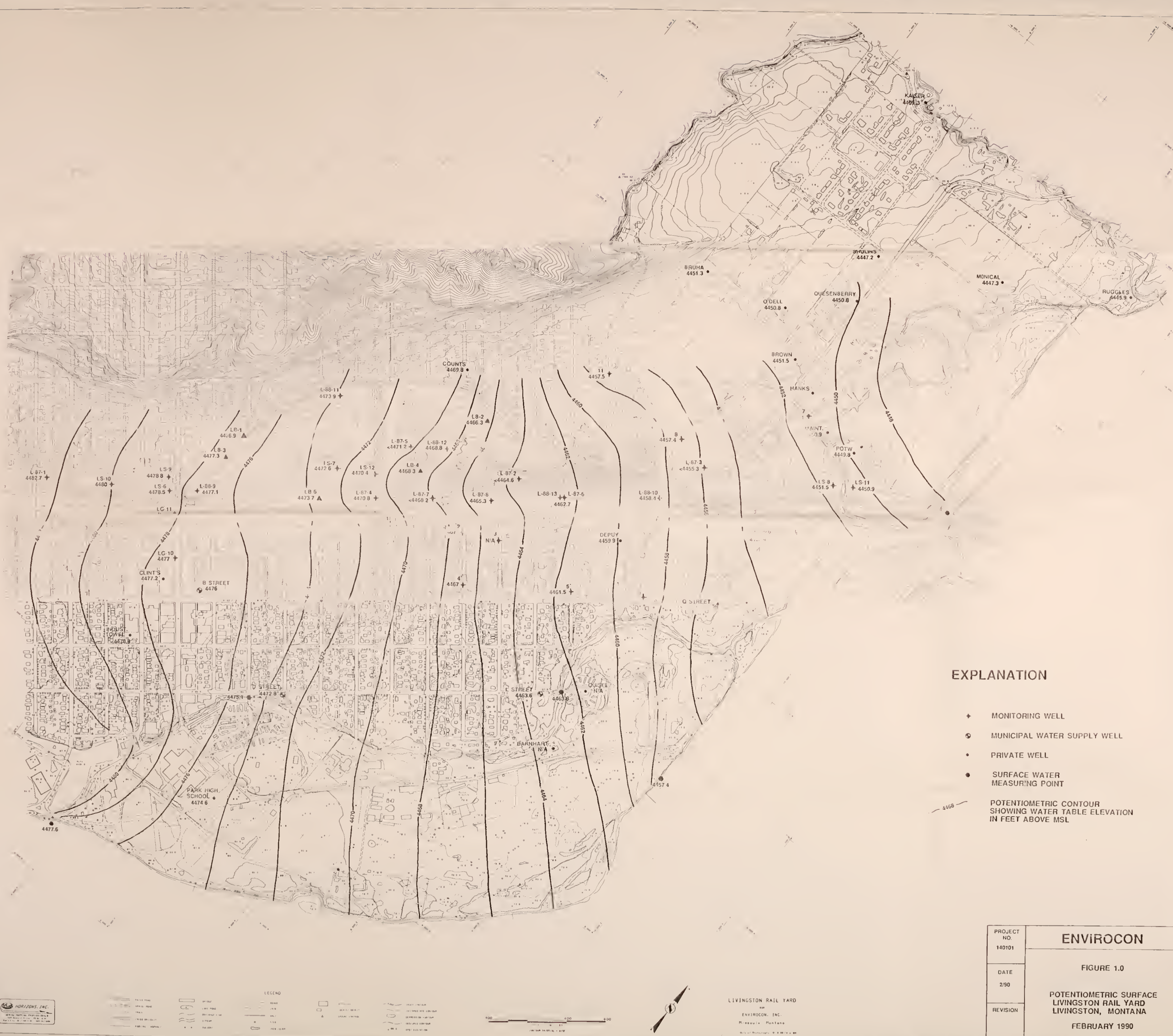
4.2.2 Laboratory Duplicate Analyses

ELI performed duplicate analyses on Samples 140101-257 (Well 6), 140101-263 (Well L-87-2), 140101-280 (Well 89-1), and 140101-294 (equipment blank). As shown in Appendix A, the concentrations of VOCs reported in the duplicate analyses are very close to those reported in the original sample analyses. This indicates that laboratory equipment and procedures were adequate to provide reproducible analytical results.

4.2.3 EPA QA/QC Sample Analyses

ELI analyzed six sets of EPA QA/QC reference samples in addition to samples submitted by Envirocon. All test values were within acceptable ranges for percent recoveries. These results indicate that laboratory equipment and procedures were adequate to provide accurate results.

FIGURE 1.0



EXPLANATION

- ✦ MONITORING WELL
- ◔ MUNICIPAL WATER SUPPLY WELL
- • PRIVATE WELL
- ● SURFACE WATER MEASURING POINT
- 4468 POTENTIOMETRIC CONTOUR SHOWING WATER TABLE ELEVATION IN FEET ABOVE MSL

HORIZONS, INC.

LEGEND

LIVINGSTON RAIL YARD
FOR
ENVIROCON, INC.
Missoula, Montana

PROJECT NO. 140101	ENVIROCON
DATE 2/90	FIGURE 1.0
REVISION	POTENTIOMETRIC SURFACE LIVINGSTON RAIL YARD LIVINGSTON, MONTANA
	FEBRUARY 1990

19.000 N
000 N

<0.1
6
GURE 3.0
STON RAILYARD
SEL PLUME
APPARENT THICKNESS IN FEET

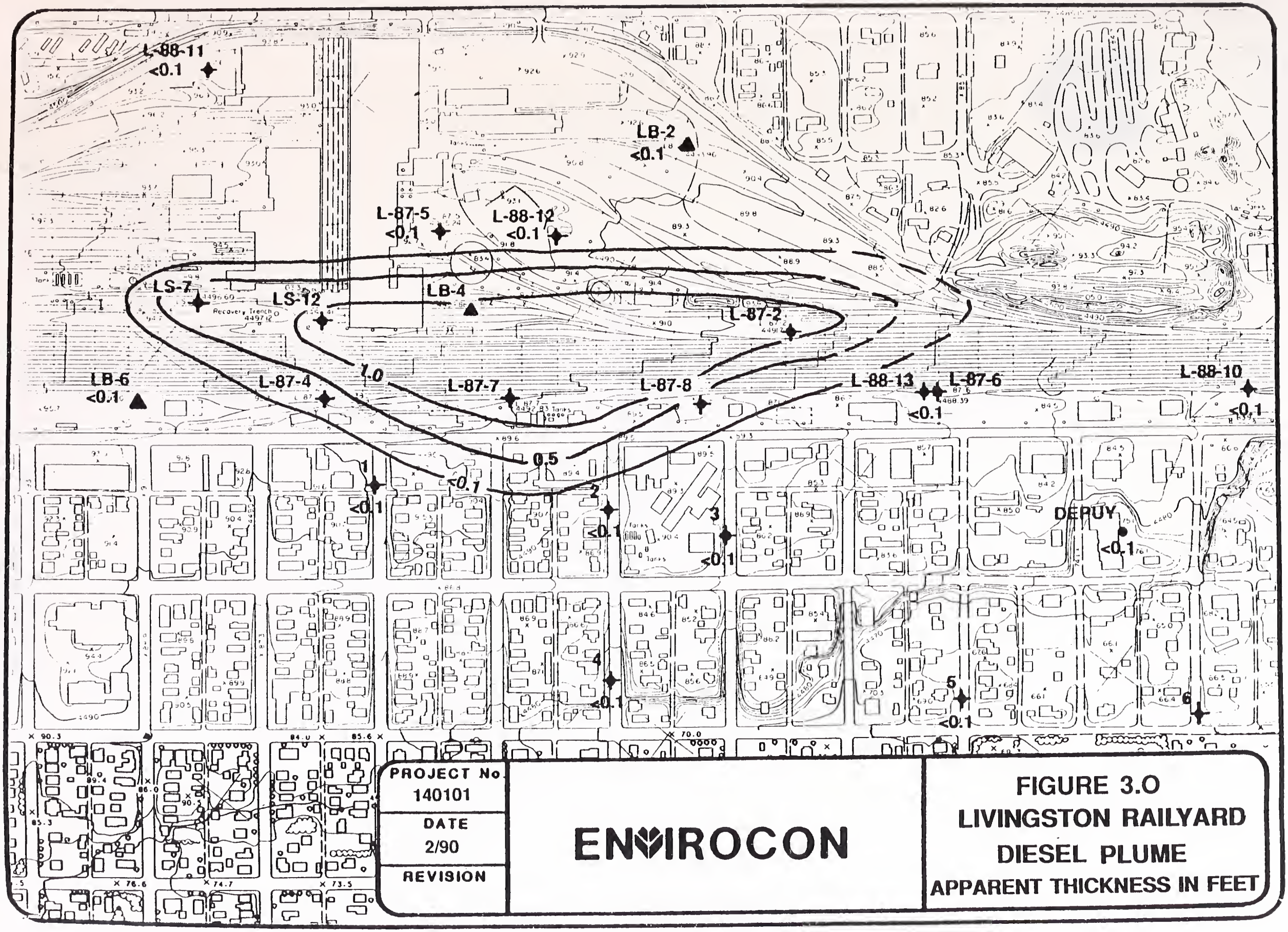
FIGURE 2.0

19.000 ft 6.000 m

EXPLANATION

- MONITORING WELL
- MUNICIPAL WATER SUPPLY WELL
- PRIVATE WELL
- 100 — CHLORINATED ETHENE CONCENTRATION CONTOUR IN PARTS PER BILLION (ug/l)

PROJECT NO. 140101	**ENVIROCON**
DATE 2/90	FIGURE 2.0 LIVINGSTON RAIL YARD CHLORINATED ETHENE PLUME TOTAL PCE, TCE, AND DCE PARTS PER BILLION (ppb)
REVISION	FEBRUARY 19[illegible]


L-88-11
<0.1
LB-2
<0.1
L-87-5
<0.1
L-88-12
<0.1
LS-7
LS-12
LB-4
L-87-2
LB-6
<0.1
L-87-4
1.0
L-87-7
L-87-8
L-88-13
<0.1
L-87-6
L-88-10
<0.1
0.5
1
<0.1
2
<0.1
3
<0.1
DEPUY
<0.1
4
<0.1
5
<0.1
6
PROJECT No.
140101
DATE
2/90
REVISION
ENVIROCON
FIGURE 3.0
LIVINGSTON RAILYARD
DIESEL PLUME
APPARENT THICKNESS IN FEET

APPENDIX A
LABORATORY ANALYSES

ENVIROCON, INC.

ENERGY LABORATORIES, INC.
P.O. BOX 30916 • 1107 SOUTH BROADWAY • BILLINGS MT 59107-0916 • PHONE (406) 252-6325
800-873-5227

ENVIROCON
PO BOX 8243
MISSOULA MT 59807

RECEIVED MAR 2 6 1990

WATER ANALYSIS

PROJECT: Livingston / BN

	L-88-9	LS-7	L-87-4	#4
LAB NO.	90-3315	90-3316	90-3317	90-3318
SAMPLE IDENTIFICATION	140101-250	140101-252	140101-253	140101-254
REPORT DATE	03/20/90	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE DATE	02/17/90	02/18/90	02/18/90	02/18/90
SAMPLE TIME	1830	1045	1130	1310
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0
Chloromethane	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	<0.50	<0.50	<0.50	<0.50
Bromomethane	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0
Chloroform	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	<0.50	<0.50	<0.50	<0.50
1,1-Dichloropropene	<1.0	<1.0	<1.0	<1.0
Benzene	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	<0.50	<0.50	<0.50	<0.50
Trichloroethene	<0.50	<0.50	<0.50	<0.50
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0
Dibromomethane	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	<0.50	<0.50	<0.50	<0.50
1,3-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	<1.0	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0

cc: Envirocon, Livingston.

ENERGY LABORATORIES, INC.
P O BOX 30916 • 1107 SOUTH BROADWAY • BILLINGS MT 59107-0916 • PHONE (406) 252-6325
800-873-5227

	L-88-9	LS-7	L-87-4	#4
LAB NO.	90-3315	90-3316	90-3317	90-3318
SAMPLE IDENTIFICATION	140101-250	140101-252	140101-253	140101-254
SAMPLE DATE	03/20/90	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE DATE	02/17/90	02/18/90	02/18/90	02/18/90
SAMPLE TIME	1830	1045	1130	1310
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Ethylbenzene	<1.0	<1.0	<1.0	<1.0
p-Xylene	<1.0	<1.0	<1.0	<1.0
m-Xylene	<1.0	<1.0	<1.0	<1.0
o-Xylene	<1.0	<1.0	<1.0	<1.0
Styrene	<1.0	<1.0	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0
Bromobenzene	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0
n-Propylbenzene	<1.0	<1.0	<1.0	<1.0
2-Chlorotoluene	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0	1.9	<1.0
4-Chlorotoluene	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<1.0	<1.0	3.2	<1.0
sec-Butylbenzene	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	<1.0	<1.0	2.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50
n-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0
Naphthalene	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0

REMARKS: Sample was properly Preserved an in specified container. Sample was analyzed in accordance with EPA method 524.2.

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	#2	#6	LS-11	LG-10
LAB NO.	90-3319	90-3320	90-3321	90-3322
SAMPLE IDENTIFICATION	140101-255	140101-257	140101-245	140101-244
REPORT DATE	03/20/90	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE DATE	02/18/90	02/18/90	02/17/90	02/17/90
SAMPLE TIME	1530	1715	1418	1210
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0
Chloromethane	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	<0.50	<0.50	<0.50	<0.50
Bromomethane	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0	1.0	<1.0
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<1.0	<1.0	80	<1.0
Chloroform	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	<0.50	<0.50	<0.50	<0.50
1,1-Dichloropropene	<1.0	<1.0	<1.0	<1.0
Benzene	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	<0.50	<0.50	<0.50	<0.50
Trichloroethene	<0.50	<0.50	17	<0.50
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0
Dibromomethane	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	0.51	1.9	88	<0.50
1,3-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	<1.0	<1.0	17	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0

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	#2	#6	LS-11	LG-10
LAB NO.	90-3319	90-3320	90-3321	90-3322
SAMPLE IDENTIFICATION	140101-255	140101-257	140101-245	140101-244
SAMPLE DATE	03/20/90	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE DATE	02/18/90	02/18/90	02/17/90	02/17/90
SAMPLE TIME	1530	1715	1418	1210
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Ethylbenzene	<1.0	<1.0	<1.0	<1.0
p-Xylene	<1.0	<1.0	<1.0	<1.0
m-Xylene	<1.0	<1.0	<1.0	<1.0
o-Xylene	<1.0	<1.0	<1.0	<1.0
Styrene	<1.0	<1.0	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0
Bromobenzene	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0
n-Propylbenzene	<1.0	<1.0	<1.0	<1.0
2-Chlorotoluene	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	<0.50	<0.50	5.2	<0.50
n-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0
Naphthalene	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0

REMARKS: Sample was properly Preserved an in specified container. Sample was analyzed in accordance with EPA method 524.2.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	B-STREET	TRIP BLANK	L-87-5	L-88-11
LAB NO.	90-3323	90-3324	90-3325	90-3326
SAMPLE IDENTIFICATION	140101-243	140101-242	140101-246	140101-248
REPORT DATE	03/20/90	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE DATE	02/17/90	02/17/90	02/17/90	02/17/90
SAMPLE TIME	1010		1520	1630
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0
Chloromethane	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	<0.50	<0.50	<0.50	<0.50
Bromomethane	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<1.0	<1.0	3.3	<1.0
Chloroform	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	<0.50	<0.50	<0.50	<0.50
1,1-Dichloropropene	<1.0	<1.0	<1.0	<1.0
Benzene	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	<0.50	<0.50	<0.50	<0.50
Trichloroethene	<0.50	<0.50	5.1	<0.50
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0
Dibromomethane	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	<0.50	<0.50	238	<0.50
1,3-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	<1.0	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0

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	B-STREET	TRIP BLANK	L-87-5	L-88-11
LAB NO.	90-3323	90-3324	90-3325	90-3326
SAMPLE IDENTIFICATION	140101-243	140101-242	140101-246	140101-248
SAMPLE DATE	03/20/90	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE DATE	02/17/90	02/17/90	02/17/90	02/17/90
SAMPLE TIME	1010		1520	1630
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Ethylbenzene	<1.0	<1.0	<1.0	<1.0
p-Xylene	<1.0	<1.0	<1.0	<1.0
m-Xylene	<1.0	<1.0	<1.0	<1.0
o-Xylene	<1.0	<1.0	<1.0	<1.0
Styrene	<1.0	<1.0	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0
Bromobenzene	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0
n-Propylbenzene	<1.0	<1.0	<1.0	<1.0
2-Chlorotoluene	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50
n-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0
Naphthalene	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0

REMARKS: Sample was properly Preserved an in specified container. Sample was analyzed in accordance with EPA method 524.2.

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	L-87-1	EQUIPMENT BLANK	DUPLICATE OF L-87-5
LAB NO.	90-3327	90-3328	90-3329
SAMPLE IDENTIFICATION	140101-249	140101-256	140101-247
REPORT DATE	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90	02/19/90
SAMPLE DATE	02/17/90	02/18/90	02/17/90
SAMPLE TIME	1730	1600	1535
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l
Dichlorodifluoromethane	<1.0	<1.0	<1.0
Chloromethane	<1.0	<1.0	<1.0
Vinyl chloride	<0.50	<0.50	<0.50
Bromomethane	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0	<1.0
1,1-Dichloroethene	<0.50	<0.50	<0.50
Methylene Chloride	<1.0	2.2	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0
1,1-Dichloroethane	<1.0	<1.0	<1.0
2,2-Dichloropropane	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<1.0	<1.0	3.2
Chloroform	<1.0	14	<1.0
Bromochloromethane	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<0.50	<0.50	<0.50
Carbon Tetrachloride	<0.50	<0.50	<0.50
1,1-Dichloropropene	<1.0	<1.0	<1.0
Benzene	<0.50	<0.50	<0.50
1,2-Dichloroethane	<0.50	<0.50	<0.50
Trichloroethene	<0.50	<0.50	5.4
1,2-Dichloropropane	<1.0	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0
Dibromomethane	<1.0	<1.0	<1.0
Toluene	<1.0	2.2	<1.0
1,1,2-Trichloroethane	<1.0	<1.0	<1.0
Tetrachloroethene	<0.50	0.50	254
1,3-Dichloropropane	<1.0	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0	<1.0
Chlorobenzene	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0

cc: Envirocon, Livingston.

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	L-87-1	EQUIPMENT BLANK	DUPLICATE OF L-87-5
LAB NO.	90-3327	90-3328	90-3329
SAMPLE IDENTIFICATION	140101-249	140101-256	140101-247
SAMPLE DATE	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90	02/19/90
SAMPLE DATE	02/17/90	02/18/90	02/17/90
SAMPLE TIME	1730	1600	1535
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l
Ethylbenzene	<1.0	<1.0	<1.0
p-Xylene	<1.0	<1.0	<1.0
m-Xylene	<1.0	<1.0	<1.0
o-Xylene	<1.0	<1.0	<1.0
Styrene	<1.0	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0
Isopropylbenzene	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0
Bromobenzene	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0
n-Propylbenzene	<1.0	<1.0	<1.0
2-Chlorotoluene	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0	<1.0
p-Isopropyltoluene	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	<0.50	<0.50	<0.50
n-Butylbenzene	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0	<1.0
Naphthalene	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

#6

	Duplicate
LAB NO.	90-3320
SAMPLE IDENTIFICATION	140101-257
REPORT DATE	03/20/90
SAMPLE SUBMITTED	02/19/90
SAMPLE DATE	02/18/90
SAMPLE TIME	1715
VOLATILE ORGANIC CONSTITUENT	ug/l
Dichlorodifluoromethane	<1.0
Chloromethane	<1.0
Vinyl chloride	<0.50
Bromomethane	<1.0
Chloroethane	<1.0
Trichlorofluoromethane	<1.0
1,1-Dichloroethene	<0.50
Methylene Chloride	<1.0
trans-1,2-Dichloroethene	<1.0
1,1-Dichloroethane	<1.0
2,2-Dichloropropane	<1.0
cis-1,2-Dichloroethene	<1.0
Chloroform	<1.0
Bromochloromethane	<1.0
1,1,1-Trichloroethane	<0.50
Carbon Tetrachloride	<0.50
1,1-Dichloropropene	<1.0
Benzene	<0.50
1,2-Dichloroethane	<0.50
Trichloroethene	<0.50
1,2-Dichloropropane	<1.0
Bromodichloromethane	<1.0
Dibromomethane	<1.0
Toluene	<1.0
1,1,2-Trichloroethane	<1.0
Tetrachloroethene	2.2
1,3-Dichloropropane	<1.0
Dibromochloromethane	<1.0
1,2-Dibromoethane	<1.0
Chlorobenzene	<1.0
1,1,1,2-Tetrachloroethane	<1.0

cc: Envirocon, Livingston.

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#6

	Duplicate
LAB NO.	90-3320
SAMPLE IDENTIFICATION	140101-257
SAMPLE DATE	03/20/90
SAMPLE SUBMITTED	02/19/90
SAMPLE DATE	02/18/90
SAMPLE TIME	1715
VOLATILE ORGANIC CONSTITUENT	ug/l
Ethylbenzene	<1.0
p-Xylene	<1.0
m-Xylene	<1.0
o-Xylene	<1.0
Styrene	<1.0
Bromoform	<1.0
Isopropylbenzene	<1.0
1,1,2,2-Tetrachloroethane	<1.0
Bromobenzene	<1.0
1,2,3-Trichloropropane	<1.0
n-Propylbenzene	<1.0
2-Chlorotoluene	<1.0
1,3,5-Trimethylbenzene	<1.0
4-Chlorotoluene	<1.0
tert-Butylbenzene	<1.0
1,2,4-Trimethylbenzene	<1.0
sec-Butylbenzene	<1.0
p-Isopropyltoluene	<1.0
1,3-Dichlorobenzene	<1.0
1,4-Dichlorobenzene	<0.50
n-Butylbenzene	<1.0
1,2-Dichlorobenzene	<1.0
1,2-Dibromo-3-Chloropropane	<1.0
1,2,4-Trichlorobenzene	<1.0
Hexachlorobutadiene	<1.0
Naphthalene	<1.0
1,2,3-Trichlorobenzene	<1.0
cis-1,3-Dichloropropene	<1.0
trans-1,3-Dichloropropene	<1.0

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	L-88-9	LS-7	L-87-4	#4
LAB NO.	90-3315	90-3316	90-3317	90-3318
SAMPLE IDENTIFICATION	140101-250	140101-252	140101-253	140101-254
DATE REPORTED	03/20/90	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE DATE	02/17/90	02/18/90	02/18/90	02/18/90
SAMPLE TIME	1830	1045	1130	1310
EPA METHOD 8270				
ACID EXTRACTABLES	ug/l	ug/l	ug/l	ug/l
4-Chloro-3-methylphenol	<10	<10	<10	<10
2-Chlorophenol	<10	<10	<10	<10
2,4-Dichlorophenol	<10	<10	<10	<10
2,4-Dimethylphenol	<10	<10	<10	<10
2,4-Dinitrophenol	<50	<50	<50	<50
2-Methyl-4,6-dinitrophenol	<50	<50	<50	<50
2-Nitrophenol	<10	<10	<10	<10
4-Nitrophenol	<50	<50	<50	<50
Pentachlorophenol	<50	<50	<50	<50
Phenol	<10	<10	<10	<10
2,4,6-Trichlorophenol	<10	<10	<10	<10
BASE NEUTRAL EXTRACTABLES	ug/l	ug/l	ug/l	ug/l
Acenaphthene	<10	<10	<10	<10
Acenaphthylene	<10	<10	<10	<10
Anthracene	<10	<10	<10	<10
Azobenzene	<10	<10	<10	<10
Benzidine	<10	<10	<10	<10
Benzo(a)anthracene	<10	<10	<10	<10
Benzo(a)pyrene	<10	<10	<10	<10
Benzo(b)fluoranthene	<10	<10	<10	<10
Benzo(k)fluoranthene	<10	<10	<10	<10
Benzo(ghi)perylene	<10	<10	<10	<10
Bis(2-chloroethoxy)methane	<10	<10	<10	<10
Bis(2-chloroethyl)ether	<10	<10	<10	<10
Bis(2-chloroisopropyl)ether	<10	<10	<10	<10
Bis(2-ethylhexyl)phthalate	<10	<10	<10	<10
4-Bromophenylphenyl ether	<10	<10	<10	<10
Butyl benzyl phthalate	<10	<10	<10	<10

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	L88-9	LS-7	L-87-4	#4
LAB NO.	90-3315	90-3316	90-3317	90-3318
SAMPLE IDENTIFICATION	140101-250	140101-252	140101-253	140101-254
DATE REPORTED	03/20/90	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE DATE	02/17/90	02/18/90	02/18/90	02/18/90
SAMPLE TIME	1830	1045	1130	1310
EPA METHOD 8270				
BASE NEUTRAL EXTRACTABLES	ug/l	ug/l	ug/l	ug/l
2-Chloronaphthalene	<10	<10	<10	<10
4-Chlorophenylphenyl ether	<10	<10	<10	<10
Chrysene	<10	<10	<10	<10
Dibenzo(a,h)anthracene	<10	<10	<10	<10
1,2-Dichlorobenzene	<10	<10	<10	<10
1,3-Dichlorobenzene	<10	<10	<10	<10
1,4-Dichlorobenzene	<10	<10	<10	<10
3,3-Dichlorobenzidine	<10	<10	<10	<10
Diethyl phthalate	<10	<10	<10	<10
Dimethyl phthalate	<10	<10	<10	<10
Di-n-butyl phthalate	<10	<10	<10	<10
2,4-Dinitrotoluene	<10	<10	<10	<10
2,6-Dinitrotoluene	<10	<10	<10	<10
Di-n-octyl phthalate	<10	<10	<10	<10
Fluoranthene	<10	<10	<10	<10
Fluorene	<10	<10	<10	<10
Hexachlorobenzene	<10	<10	<10	<10
Hexachlorobutadiene	<10	<10	<10	<10
Hexachloroethane	<10	<10	<10	<10
Indeno(1,2,3-cd)pyrene	<10	<10	<10	<10
Isophorone	<10	<10	<10	<10
Naphthalene	<10	<10	<10	<10
Nitrobenzene	<10	<10	<10	<10
N-Nitrosophenylamine	<10	<10	<10	<10
N-Nitrosodi-n-propylamine	<10	<10	<10	<10
Phenanthrene	<10	<10	<10	<10
Pyrene	<10	<10	<10	<10
1,2,4-Trichlorobenzene	<10	<10	<10	<10

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	#2	#6	LS-11	LG-10
LAB NO.	90-3319	90-3320	90-3321	90-3322
SAMPLE IDENTIFICATION	140101-255	140101-257	140101-245	140101-244
DATE REPORTED	03/20/90	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE DATE	02/18/90	02/18/90	02/17/90	02/17/90
SAMPLE TIME	1530	1715	1418	1210
EPA METHOD 8270				
ACID EXTRACTABLES	ug/l	ug/l	ug/l	ug/l
4-Chloro-3-methylphenol	<10	<10	<10	<10
2-Chlorophenol	<10	<10	<10	<10
2,4-Dichlorophenol	<10	<10	<10	<10
2,4-Dimethylphenol	<10	<10	<10	<10
2,4-Dinitrophenol	<50	<50	<50	<50
2-Methyl-4,6-dinitrophenol	<50	<50	<50	<50
2-Nitrophenol	<10	<10	<10	<10
4-Nitrophenol	<50	<50	<50	<50
Pentachlorophenol	<50	<50	<50	<50
Phenol	<10	<10	<10	<10
2,4,6-Trichlorophenol	<10	<10	<10	<10
BASE NEUTRAL EXTRACTABLES	ug/l	ug/l	ug/l	ug/l
Acenaphthene	<10	<10	<10	<10
Acenaphthylene	<10	<10	<10	<10
Anthracene	<10	<10	<10	<10
Azobenzene	<10	<10	<10	<10
Benzidine	<10	<10	<10	<10
Benzo(a)anthracene	<10	<10	<10	<10
Benzo(a)pyrene	<10	<10	<10	<10
Benzo(b)fluoranthene	<10	<10	<10	<10
Benzo(k)fluoranthene	<10	<10	<10	<10
Benzo(ghi)perylene	<10	<10	<10	<10
Bis(2-chloroethoxy)methane	<10	<10	<10	<10
Bis(2-chloroethyl)ether	<10	<10	<10	<10
Bis(2-chloroisopropyl)ether	<10	<10	<10	<10
Bis(2-ethylhexyl)phthalate	<10	<10	<10	<10
4-Bromophenylphenyl ether	<10	<10	<10	<10
Butyl benzyl phthalate	<10	<10	<10	<10

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	#2	#6	LS-11	LG-10
LAB NO.	90-3319	90-3320	90-3321	90-3322
SAMPLE IDENTIFICATION	140101-255	140101-257	140101-245	140101-244
DATE REPORTED	03/20/90	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE DATE	02/18/90	02/18/90	02/17/90	02/17/90
SAMPLE TIME	1530	1715	1418	1210

EPA METHOD 8270

BASE NEUTRAL EXTRACTABLES	ug/l	ug/l	ug/l	ug/l
2-Chloronaphthalene	<10	<10	<10	<10
4-Chlorophenylphenyl ether	<10	<10	<10	<10
Chrysene	<10	<10	<10	<10
Dibenzo(a,h)anthracene	<10	<10	<10	<10
1,2-Dichlorobenzene	<10	<10	<10	<10
1,3-Dichlorobenzene	<10	<10	<10	<10
1,4-Dichlorobenzene	<10	<10	<10	<10
3,3-Dichlorobenzidine	<10	<10	<10	<10
Diethyl phthalate	<10	<10	<10	<10
Dimethyl phthalate	<10	<10	<10	<10
Di-n-butyl phthalate	<10	<10	<10	<10
2,4-Dinitrotoluene	<10	<10	<10	<10
2,6-Dinitrotoluene	<10	<10	<10	<10
Di-n-octyl phthalate	<10	<10	<10	<10
Fluoranthene	<10	<10	<10	<10
Fluorene	<10	<10	<10	<10
Hexachlorobenzene	<10	<10	<10	<10
Hexachlorobutadiene	<10	<10	<10	<10
Hexachloroethane	<10	<10	<10	<10
Indeno(1,2,3-cd)pyrene	<10	<10	<10	<10
Isophorone	<10	<10	<10	<10
Naphthalene	<10	<10	<10	<10
Nitrobenzene	<10	<10	<10	<10
N-Nitrosophenylamine	<10	<10	<10	<10
N-Nitrosodi-n-propylamine	<10	<10	<10	<10
Phenanthrene	<10	<10	<10	<10
Pyrene	<10	<10	<10	<10
1,2,4-Trichlorobenzene	<10	<10	<10	<10

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	B-STREET	L-87-5	L-88-11	L-87-1
LAB NO.	90-3323	90-3325	90-3326	90-3327
SAMPLE IDENTIFICATION	140101-243	140101-246	140101-248	140101-249
DATE REPORTED	03/20/90	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE DATE	02/17/90	02/17/90	02/17/90	02/17/90
SAMPLE TIME	1010	1520	1630	1730
EPA METHOD 8270				
ACID EXTRACTABLES	ug/l	ug/l	ug/l	ug/l
4-Chloro-3-methylphenol	<10	<10	<10	<10
2-Chlorophenol	<10	<10	<10	<10
2,4-Dichlorophenol	<10	<10	<10	<10
2,4-Dimethylphenol	<10	<10	<10	<10
2,4-Dinitrophenol	<50	<50	<50	<50
2-Methyl-4,6-dinitrophenol	<50	<50	<50	<50
2-Nitrophenol	<10	<10	<10	<10
4-Nitrophenol	<50	<50	<50	<50
Pentachlorophenol	<50	<50	<50	<50
Phenol	<10	<10	<10	<10
2,4,6-Trichlorophenol	<10	<10	<10	<10
BASE NEUTRAL EXTRACTABLES	ug/l	ug/l	ug/l	ug/l
Acenaphthene	<10	<10	<10	<10
Acenaphthylene	<10	<10	<10	<10
Anthracene	<10	<10	<10	<10
Azobenzene	<10	<10	<10	<10
Benzidine	<10	<10	<10	<10
Benzo(a)anthracene	<10	<10	<10	<10
Benzo(a)pyrene	<10	<10	<10	<10
Benzo(b)fluoranthene	<10	<10	<10	<10
Benzo(k)fluoranthene	<10	<10	<10	<10
Benzo(ghi)perylene	<10	<10	<10	<10
Bis(2-chloroethoxy)methane	<10	<10	<10	<10
Bis(2-chloroethyl)ether	<10	<10	<10	<10
Bis(2-chloroisopropyl)ether	<10	<10	<10	<10
Bis(2-ethylhexyl)phthalate	<10	<10	<10	<10
4-Bromophenylphenyl ether	<10	<10	<10	<10
Butyl benzyl phthalate	<10	<10	<10	<10

cc: Envirocon, Livingston.

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	B STREET	L-87-5	L-88-11	L-87-1
LAB NO.	90-3323	90-3325	90-3326	90-3327
SAMPLE IDENTIFICATION	140101-243	140101-246	140101-248	140101-249
DATE REPORTED	03/20/90	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE DATE	02/17/90	02/17/90	02/17/90	02/17/90
SAMPLE TIME	1010	1520	1630	1730
EPA METHOD 8270				
BASE NEUTRAL EXTRACTABLES	ug/l	ug/l	ug/l	ug/l
2-Chloronaphthalene	<10	<10	<10	<10
4-Chlorophenylphenyl ether	<10	<10	<10	<10
Chrysene	<10	<10	<10	<10
Dibenzo(a,h)anthracene	<10	<10	<10	<10
1,2-Dichlorobenzene	<10	<10	<10	<10
1,3-Dichlorobenzene	<10	<10	<10	<10
1,4-Dichlorobenzene	<10	<10	<10	<10
3,3-Dichlorobenzidine	<10	<10	<10	<10
Diethyl phthalate	<10	<10	<10	<10
Dimethyl phthalate	<10	<10	<10	<10
Di-n-butyl phthalate	<10	<10	<10	<10
2,4-Dinitrotoluene	<10	<10	<10	<10
2,6-Dinitrotoluene	<10	<10	<10	<10
Di-n-octyl phthalate	<10	<10	<10	<10
Fluoranthene	<10	<10	<10	<10
Fluorene	<10	<10	<10	<10
Hexachlorobenzene	<10	<10	<10	<10
Hexachlorobutadiene	<10	<10	<10	<10
Hexachloroethane	<10	<10	<10	<10
Indeno(1,2,3-cd)pyrene	<10	<10	<10	<10
Isophorone	<10	<10	<10	<10
Naphthalene	<10	<10	<10	<10
Nitrobenzene	<10	<10	<10	<10
N-Nitrosophenylamine	<10	<10	<10	<10
N-Nitrosodi-n-propylamine	<10	<10	<10	<10
Phenanthrene	<10	<10	<10	<10
Pyrene	<10	<10	<10	<10
1,2,4-Trichlorobenzene	<10	<10	<10	<10

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

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	Duplicate
LAB NO.	90-3320
SAMPLE IDENTIFICATION	140101-257
DATE REPORTED	03/20/90
SAMPLE SUBMITTED	02/19/90
SAMPLE DATE	02/18/90
SAMPLE TIME	1715
EPA METHOD 8270	
ACID EXTRACTABLES	ug/l
4-Chloro-3-methylphenol	<10
2-Chlorophenol	<10
2,4-Dichlorophenol	<10
2,4-Dimethylphenol	<10
2,4-Dinitrophenol	<50
2-Methyl-4,6-dinitrophenol	<50
2-Nitrophenol	<10
4-Nitrophenol	<50
Pentachlorophenol	<50
Phenol	<10
2,4,6-Trichlorophenol	<10
BASE NEUTRAL EXTRACTABLES	ug/l
Acenaphthene	<10
Acenaphthylene	<10
Anthracene	<10
Azobenzene	<10
Benzidine	<10
Benzo(a)anthracene	<10
Benzo(a)pyrene	<10
Benzo(b)fluoranthene	<10
Benzo(k)fluoranthene	<10
Benzo(ghi)perylene	<10
Bis(2-chloroethoxy)methane	<10
Bis(2-chloroethyl)ether	<10
Bis(2-chloroisopropyl)ether	<10
Bis(2-ethylhexyl)phthalate	<10
4-Bromophenylphenyl ether	<10
Butyl benzyl phthalate	<10

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#6

	Duplicate
LAB NO.	90-3320
SAMPLE IDENTIFICATION	140101-257
DATE REPORTED	03/20/90
SAMPLE SUBMITTED	02/19/90
SAMPLE DATE	02/18/90
SAMPLE TIME	1715

EPA METHOD 8270

BASE NEUTRAL EXTRACTABLES	ug/l
2-Chloronaphthalene	<10
4-Chlorophenylphenyl ether	<10
Chrysene	<10
Dibenzo(a,h)anthracene	<10
1,2-Dichlorobenzene	<10
1,3-Dichlorobenzene	<10
1,4-Dichlorobenzene	<10
3,3-Dichlorobenzidine	<10
Diethyl phthalate	<10
Dimethyl phthalate	<10
Di-n-butyl phthalate	<10
2,4-Dinitrotoluene	<10
2,6-Dinitrotoluene	<10
Di-n-octyl phthalate	<10
Fluoranthene	<10
Fluorene	<10
Hexachlorobenzene	<10
Hexachlorobutadiene	<10
Hexachloroethane	<10
Indeno(1,2,3-cd)pyrene	<10
Isophorone	<10
Naphthalene	<10
Nitrobenzene	<10
N-Nitrosophenylamine	<10
N-Nitrosodi-n-propylamine	<10
Phenanthrene	<10
Pyrene	<10
1,2,4-Trichlorobenzene	<10

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

PROJECT: Livingston / BN

Water Analysis	L-88-9	LS-7	L-87-4	#4
LAB NO.	90-3315	90-3316	90-3317	90-3318
SAMPLE IDENTIFICATION	140101-250	140101-252	140101-253	140101-254
DATE REPORTED	03/20/90	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE DATE	02/17/90	02/18/90	02/18/90	02/18/90
SAMPLE TIME	1830	1045	1130	1310
Pesticides and PCBs (EPA Method 608)	ug/l	ug/l	ug/l	ug/l
Aldrin	<0.05	<0.05	<0.05	<0.05
alpha BHC	<0.05	<0.05	<0.05	<0.05
beta BHC	<0.05	<0.05	<0.05	<0.05
delta BHC	<0.05	<0.05	<0.05	<0.05
gamma BHC	<0.05	<0.05	<0.05	<0.05
Chlordane	<0.10	<0.10	<0.10	<0.10
4,4'-DDD	<0.10	<0.10	<0.10	<0.10
4,4'DDE	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	<0.10	<0.10	<0.10	<0.10
Dieldrin	<0.05	<0.05	<0.05	<0.05
Endosulfan I	<0.10	<0.10	<0.10	<0.10
Endosulfan II	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	<0.10	<0.10	<0.10	<0.10
Endrin	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	<0.10	<0.10	<0.10	<0.10
Heptachlor	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	<0.10	<0.10	<0.10	<0.10
Toxaphene	<1.0	<1.0	<1.0	<1.0
PCB-1016	<1.0	<1.0	<1.0	<1.0
PCB-1221	<1.0	<1.0	<1.0	<1.0
PCB-1232	<1.0	<1.0	<1.0	<1.0
PCB-1242	<1.0	<1.0	<1.0	<1.0
PCB-1248	<1.0	<1.0	<1.0	<1.0
PCB-1254	<1.0	<1.0	<1.0	<1.0
PCB-1260	<1.0	<1.0	<1.0	<1.0

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

PROJECT: Livingston / BN

Water Analysis	#2	#6	LS-11	LG-10
LAB NO.	90-3319	90-3320	90-3321	90-3322
SAMPLE IDENTIFICATION	140101-255	140101-257	140101-245	140101-244
DATE REPORTED	03/20/90	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE DATE	02/18/90	02/18/90	02/17/90	02/17/90
SAMPLE TIME	1530	1715	1418	1210
Pesticides and PCBs (EPA Method 608)	ug/l	ug/l	ug/l	ug/l
Aldrin	<0.05	<0.05	<0.05	<0.05
alpha BHC	<0.05	<0.05	<0.05	<0.05
beta BHC	<0.05	<0.05	<0.05	<0.05
delta BHC	<0.05	<0.05	<0.05	<0.05
gamma BHC	<0.05	<0.05	<0.05	<0.05
Chlordane	<0.10	<0.10	<0.10	<0.10
4,4'-DDD	<0.10	<0.10	<0.10	<0.10
4,4'DDE	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	<0.10	<0.10	<0.10	<0.10
Dieldrin	<0.05	<0.05	<0.05	<0.05
Endosulfan I	<0.10	<0.10	<0.10	<0.10
Endosulfan II	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	<0.10	<0.10	<0.10	<0.10
Endrin	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	<0.10	<0.10	<0.10	<0.10
Heptachlor	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	<0.10	<0.10	<0.10	<0.10
Toxaphene	<1.0	<1.0	<1.0	<1.0
PCB-1016	<1.0	<1.0	<1.0	<1.0
PCB-1221	<1.0	<1.0	<1.0	<1.0
PCB-1232	<1.0	<1.0	<1.0	<1.0
PCB-1242	<1.0	<1.0	<1.0	<1.0
PCB-1248	<1.0	<1.0	<1.0	<1.0
PCB-1254	<1.0	<1.0	<1.0	<1.0
PCB-1260	<1.0	<1.0	<1.0	<1.0

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

PROJECT: Livingston / BN

Water Analysis

	B-STREET	L-87-5	L-88-11	L-87-1
LAB NO.	90-3323	90-3325	90-3326	90-3327
SAMPLE IDENTIFICATION	140101-243	140101-246	140101-248	140101-249
DATE REPORTED	03/20/90	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE DATE	02/17/90	02/17/90	02/17/90	02/17/90
SAMPLE TIME	1010	1520	1630	1730
Pesticides and PCBs (EPA Method 608)	ug/l	ug/l	ug/l	ug/l
Aldrin	<0.05	<0.05	<0.05	<0.05
alpha BHC	<0.05	<0.05	<0.05	<0.05
beta BHC	<0.05	<0.05	<0.05	<0.05
delta BHC	<0.05	<0.05	<0.05	<0.05
gamma BHC	<0.05	<0.05	<0.05	<0.05
Chlordane	<0.10	<0.10	<0.10	<0.10
4,4'-DDD	<0.10	<0.10	<0.10	<0.10
4,4'DDE	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	<0.10	<0.10	<0.10	<0.10
Dieldrin	<0.05	<0.05	<0.05	<0.05
Endosulfan I	<0.10	<0.10	<0.10	<0.10
Endosulfan II	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	<0.10	<0.10	<0.10	<0.10
Endrin	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	<0.10	<0.10	<0.10	<0.10
Heptachlor	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	<0.10	<0.10	<0.10	<0.10
Toxaphene	<1.0	<1.0	<1.0	<1.0
PCB-1016	<1.0	<1.0	<1.0	<1.0
PCB-1221	<1.0	<1.0	<1.0	<1.0
PCB-1232	<1.0	<1.0	<1.0	<1.0
PCB-1242	<1.0	<1.0	<1.0	<1.0
PCB-1248	<1.0	<1.0	<1.0	<1.0
PCB-1254	<1.0	<1.0	<1.0	<1.0
PCB-1260	<1.0	<1.0	<1.0	<1.0

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

PROJECT: Livingston / BN

Quality Assurance Spiked Analysis

CONSTITUENT	Spike Amount ug/l	P (%)	Range for P (%)
1,1-Dichloroethene	5.0	102	60-140
Benzene	5.0	127	60-140
Trichloroethene	5.0	108	60-140
Toluene	5.0	128	60-140
Chlorobenzene	5.0	109	60-140

P = percent recovery measured.

NOTE: Lab no. 90-3321 was spiked with the above constituents with these results.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	L-88-9	LS-7	L-87-4	#4
LAB NO.	90-3315	90-3316	90-3317	90-3318
SAMPLE IDENTIFICATION	140101-250	140101-252	140101-253	140101-254
REPORT DATE	03/20/90	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE DATE	02/17/90	02/18/90	02/18/90	02/18/90
SAMPLE TIME	1830	1045	1130	1310
DISSOLVED METALS:	mg/l	mg/l	mg/l	mg/l
Arsenic	<0.005	<0.005	<0.005	<0.005
Barium	<0.1	<0.1	<0.1	<0.1
Cadmium	<0.001	<0.001	<0.001	<0.001
Chromium	<0.02	<0.02	<0.02	<0.02
Lead	0.01	0.02	0.02	0.02
Mercury	<0.001	<0.001	<0.001	<0.001
Selenium	<0.005	<0.005	<0.005	<0.005
Silver	<0.005	<0.005	<0.005	<0.005
Total Petroleum Hydrocarbons	<0.1	0.3	8.1	<0.1

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	#2	#6	LS-11	LG-10
LAB NO.	90-3319	90-3320	90-3321	90-3322
SAMPLE IDENTIFICATION	140101-255	140101-257	140101-245	140101-244
REPORT DATE	03/20/90	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE DATE	02/18/90	02/18/90	02/17/90	02/17/90
SAMPLE TIME	1530	1715	1418	1210
DISSOLVED METALS:	mg/l	mg/l	mg/l	mg/l
Arsenic	<0.005	<0.005	0.005	<0.005
Barium	<0.1	<0.1	<0.1	<0.1
Cadmium	<0.001	0.004	0.004	0.003
Chromium	<0.02	<0.02	<0.02	<0.02
Lead	0.02	<0.01	0.01	<0.01
Mercury	<0.001	<0.001	<0.001	<0.001
Selenium	<0.005	<0.005	<0.005	<0.005
Silver	<0.005	<0.005	<0.005	<0.005
Total Petroleum Hydrocarbons	<0.1	0.1	0.1	<0.1

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	B STREET	L-87-5	L-88-11	L-87-1
LAB NO.	90-3323	90-3325	90-3326	90-3327
SAMPLE IDENTIFICATION	140101-243	140101-246	140101-248	140101-249
REPORT DATE	03/20/90	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE DATE	02/17/90	02/17/90	02/17/90	02/17/90
SAMPLE TIME	1010	1520	1630	1730
DISSOLVED METALS:	mg/l	mg/l	mg/l	mg/l
Arsenic	<0.005	<0.005	<0.005	<0.005
Barium	<0.1	<0.1	<0.1	<0.1
Cadmium	0.001	0.004	0.003	0.004
Chromium	<0.02	<0.02	<0.02	<0.02
Lead	0.01	<0.01	<0.01	<0.01
Mercury	<0.001	<0.001	<0.001	<0.001
Selenium	<0.005	<0.005	<0.005	<0.005
Silver	<0.005	<0.005	<0.005	<0.005
Total Petroleum Hydrocarbons	<0.1	<0.1	<0.1	<0.1

cc: Envirocon, Livingston.

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WATER ANALYSIS

PROJECT: Livingston / BN

	#6 Duplicate	LS-11 Spike
LAB NO.	90-3320	90-3321
SAMPLE IDENTIFICATION	140101-257	140101-245
REPORT DATE	03/20/90	03/20/90
SAMPLE SUBMITTED	02/19/90	02/19/90
SAMPLE DATE	02/18/90	02/17/90
SAMPLE TIME	1715	1418
DISSOLVED METALS:	mg/l	% Recovery
Arsenic	<0.005	90
Barium	<0.1	98
Cadmium	0.002	93
Chromium	<0.02	94
Lead	0.01	88
Mercury	<0.001	100
Selenium	<0.005	91
Silver	<0.005	81

Total Petroleum Hydrocarbons

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

EPA WATER SUPPLY QUALITY
CONTROL SAMPLE

Volatile Organic Contaminants

PROJECT: Livingston / BN

PARAMETER	True Value, ug/l	P (%)	Range for P (%)
Toluene	5.0	114	60-140
Chlorobenzene	5.0	117	60-140
Isopropylbenzene	5.0	88	60-140
Sec-Butylbenzene	5.0	93	60-140
1,2,4-Trimethylbenzene	5.0	91	60-140
n-Butylbenzene	5.0	96	60-140
1,2-Dichlorobenzene	5.0	129	60-140

P = Percent recovery measured.

This EPA Quality Control sample was analyzed with your
lab no.s 90-3315 thru 90-3329 with the above results.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

QUALITY ASSURANCE SPIKE ANALYSIS

PROJECT: Livingston / BN

CONSTITUENT	Spike Amount, ug/l	P (%)	Range for P (%)
Phenol	100	92	5-112
2-Chlorophenol	100	78	23-134
4-Chloro-3-methylphenol	100	76	22-147
4-Nitrophenol	100	94	D-132
Pentachlorophenol	100	112	14-176
1,4-Dichlorobenzene	50	89	20-124
N-Nitroso-di-n-propylamine	50	93	D-230
1,2,4-Trichlorobenzene	50	100	44-142
Acenaphthene	50	86	47-145
2,4-Dinitrotoluene	50	120	39-139
Pyrene	50	86	53-115

P = Percent recovery measured.

Lab No. 90-3321 was spiked with the above constituent with these results.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

EPA QUALITY CONTROL SAMPLES

GC/MS BASE NEUTRALS

PROJECT: Livingston / BN

PARAMETER	True Value, ug/l	P (%)	Range for P, Ps (%)
1,4-Dichlorobenzene	50	87	20-124
Hexachloroethane	50	55	40-113
Nitrobenzene	50	48	35-180
Naphthalene	50	93	21-133
Dimethyl Phthalate	50	101	D-112
Acenaphthene	50	88	47-145
Fluorene	50	96	59-121
4-Chlorophenyl phenyl ether	50	87	25-158
4-Bromophenyl phenyl ether	50	93	53-127
Anthracene	50	92	27-133
Fluoranthene	50	87	26-137
Butyl benzyl phthalate	50	111	D-152
Chrysene	50	96	17-168
Bis (2-Ethyl Hexyl) Phthalate	50	80	8-158
Benzo (b) Fluoranthene	50	120	24-159
Benzo (a) pyrene	50	99	17-163
Dibenzo (a,h) anthracene	50	91	D-227
Benzo (g,h,i) perylene	50	94	D-219

P, Ps = Percent recovery measured.

This EPA Reference sample was analyzed with your
Lab no.s 90-3315 thru 90-3327.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

EPA WATER POLLUTION
QUALITY CONTROL SAMPLES

PROJECT: Livingston / BN

PARAMETER	True Value ug/l	P (%)	Range for P,Ps (%)
Heptachlor	2.0	100	42-122
Aldrin	2.0	83	34-111
DDE	2.0	112	30-145
Dieldrin	2.0	112	36-146
DDD	10.0	65	31-141
DDT	10.0	65	25-150
BETA-BHC	2.0	103	17-147
Heptachlor Epoxide	2.0	73	37-142
Endosulfan I	2.0	75	45-153
Endosulfan II	10.0	109	D-202

P, Ps = Percent Recovery measured.

This EPA Reference sample was analyzed with your
Lab No.s 90-3315 thru 90-3327.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

QUALITY ASSURANCE SPIKED ANALYSIS

PROJECT: Livingston / BN

CONSTITUENT	Spike Amount ug/l	P (%)	Range for P (%)
Heptachlor	2.0	78	42-122
Aldrin	2.0	79	34-111
DDE	2.0	110	30-145
Dieldrin	2.0	110	36-146
DDD	10.0	64	31-141
DDT	10.0	54	25-160

P = Percent recovery measured.

Lab No. 90-3321 was spiked with the above constituents with these results.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	#7	LS-8	L-88-10	DUPLICATE OF L-88-10
LAB NO.	90-3425	90-3426	90-3427	90-3428
SAMPLE IDENTIFICATION	140101-258	140101-259	140101-260	140101-261
REPORT DATE	03/21/90	03/21/90	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90	02/21/90	02/21/90
SAMPLE DATE	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE TIME	1020	1110	1140	1155
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0
Chloromethane	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	<0.50	0.50	<0.50	<0.50
Bromomethane	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	3.5	3.6	3.4
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<1.0	128	298	335
Chloroform	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	<0.50	<0.50	<0.50	<0.50
1,1-Dichloropropene	<1.0	<1.0	<1.0	<1.0
Benzene	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	<0.50	<0.50	<0.50	<0.50
Trichloroethene	<0.50	19	29	29
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0
Dibromomethane	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	7.9	124	177	178
1,3-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	<1.0	69	40	41
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0

cc: Envirocon, Livingston.

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	#7	LS-8	L-88-10	DUPLICATE OF L-88-10
LAB NO.	90-3425	90-3426	90-3427	90-3428
SAMPLE IDENTIFICATION	140101-258	140101-259	140101-260	140101-261
SAMPLE DATE	03/21/90	03/21/90	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90	02/21/90	02/21/90
SAMPLE DATE	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE TIME	1020	1110	1140	1155
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Ethylbenzene	<1.0	<1.0	<1.0	<1.0
p-Xylene	<1.0	<1.0	<1.0	<1.0
m-Xylene	<1.0	<1.0	<1.0	<1.0
o-Xylene	<1.0	<1.0	<1.0	<1.0
Styrene	<1.0	<1.0	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0
Bromobenzene	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0
n-Propylbenzene	<1.0	<1.0	<1.0	<1.0
2-Chlorotoluene	<1.0	<1.0	1.1	1.1
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	<0.50	5.7	2.3	2.3
n-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	1.6	1.5
1,2-Dibromo-3-Chloropropane	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0
Naphthalene	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0

REMARKS: Sample was properly preserved and in specified container. Sample was analyzed according to EPA method 524.2.

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

		L-87-3	L-87-2	L-88-12
LAB NO.	90-3429	90-3430	90-3431	90-3432
SAMPLE IDENTIFICATION	140101-262	140101-263	140101-264	140101-265
REPORT DATE	03/21/90	03/21/90	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90	02/21/90	02/21/90
SAMPLE DATE	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE TIME	1245	1420	1450	1540
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0
Chloromethane	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	<0.50	<0.50	1.2	<0.50
Bromomethane	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0	14	<1.0
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	9.9	94	1150	3.2
Chloroform	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	<0.50	<0.50	<0.50	<0.50
1,1-Dichloropropene	<1.0	<1.0	<1.0	<1.0
Benzene	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	<0.50	<0.50	<0.50	<0.50
Trichloroethene	8.6	20	71	3.8
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0
Dibromomethane	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	60	227	4.9	171
1,3-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	<1.0	<1.0	96	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0

cc: Envirocon, Livingston.

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		L-87-3	L-87-2	L-88-12
LAB NO.	90-3429	90-3430	90-3431	90-3432
SAMPLE IDENTIFICATION	140101-262	140101-263	140101-264	140101-265
SAMPLE DATE	03/21/90	03/21/90	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90	02/21/90	02/21/90
SAMPLE DATE	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE TIME	1245	1420	1450	1540
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Ethylbenzene	<1.0	<1.0	<1.0	<1.0
p-Xylene	<1.0	<1.0	<1.0	<1.0
m-Xylene	<1.0	<1.0	<1.0	<1.0
o-Xylene	<1.0	<1.0	2.3	<1.0
Styrene	<1.0	<1.0	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0
Bromobenzene	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0
n-Propylbenzene	<1.0	<1.0	<1.0	<1.0
2-Chlorotoluene	<1.0	<1.0	39	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	<0.50	<0.50	3.3	<0.50
n-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	2.8	<1.0
1,2-Dibromo-3-Chloropropane	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0
Naphthalene	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0

REMARKS: Sample was properly preserved and in specified container. Sample was analyzed according to EPA method 524.2.

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	POTW	#5	GEYSER TC	L STREET
LAB NO.	90-3433	90-3434	90-3435	90-3436
SAMPLE IDENTIFICATION	140101-266	140101-267	140101-268	140101-269
REPORT DATE	03/21/90	03/21/90	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90	02/21/90	02/21/90
SAMPLE DATE	02/20/90	02/20/90	02/20/90	02/20/90
SAMPLE TIME	0900	1040	1220	1400
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0
Chloromethane	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	<0.50	<0.50	<0.50	<0.50
Bromomethane	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	10	<1.0	<1.0	<1.0
Chloroform	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	<0.50	<0.50	<0.50	<0.50
1,1-Dichloropropene	<1.0	<1.0	<1.0	<1.0
Benzene	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	<0.50	<0.50	<0.50	<0.50
Trichloroethene	4.5	<0.50	<0.50	<0.50
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0
Dibromomethane	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	68	<0.50	<0.50	<0.50
1,3-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	<1.0	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0

cc: Envirocon, Livingston.

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	POTW	#5	GEYSER TC	L STREET
LAB NO.	90-3433	90-3434	90-3435	90-3436
SAMPLE IDENTIFICATION	140101-266	140101-267	140101-268	140101-269
SAMPLE DATE	03/21/90	03/21/90	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90	02/21/90	02/21/90
SAMPLE DATE	02/20/90	02/20/90	02/20/90	02/20/90
SAMPLE TIME	0900	1040	1220	1400
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Ethylbenzene	<1.0	<1.0	<1.0	<1.0
p-Xylene	<1.0	<1.0	<1.0	<1.0
m-Xylene	<1.0	<1.0	<1.0	<1.0
o-Xylene	<1.0	<1.0	<1.0	<1.0
Styrene	<1.0	<1.0	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0
Bromobenzene	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0
n-Propylbenzene	<1.0	<1.0	<1.0	<1.0
2-Chlorotoluene	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50
n-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0
Naphthalene	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0

REMARKS: Sample was properly preserved and in specified container. Sample was analyzed according to EPA method 524.2.

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	Q STREET	RAINBOW MOTEL
LAB NO.	90-3437	90-3438
SAMPLE IDENTIFICATION	140101-270	140101-271
REPORT DATE	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90
SAMPLE DATE	02/20/90	02/20/90
SAMPLE TIME	1420	1530
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l
Dichlorodifluoromethane	<1.0	<1.0
Chloromethane	<1.0	<1.0
Vinyl chloride	<0.50	<0.50
Bromomethane	<1.0	<1.0
Chloroethane	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0
1,1-Dichloroethene	<0.50	<0.50
Methylene Chloride	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0
1,1-Dichloroethane	<1.0	<1.0
2,2-Dichloropropane	<1.0	<1.0
cis-1,2-Dichloroethene	<1.0	27
Chloroform	<1.0	<1.0
Bromochloromethane	<1.0	<1.0
1,1,1-Trichloroethane	<0.50	<0.50
Carbon Tetrachloride	<0.50	<0.50
1,1-Dichloropropene	<1.0	<1.0
Benzene	<0.50	<0.50
1,2-Dichloroethane	<0.50	<0.50
Trichloroethene	<0.50	6.6
1,2-Dichloropropane	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0
Dibromomethane	<1.0	<1.0
Toluene	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0
Tetrachloroethene	0.50	35
1,3-Dichloropropane	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0
Chlorobenzene	<1.0	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0

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	Q STREET	RAINBOW MOTEL
LAB NO.	90-3437	90-3438
SAMPLE IDENTIFICATION	140101-270	140101-271
SAMPLE DATE	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90
SAMPLE DATE	02/20/90	02/20/90
SAMPLE TIME	1420	1530
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l
Ethylbenzene	<1.0	<1.0
p-Xylene	<1.0	<1.0
m-Xylene	<1.0	<1.0
o-Xylene	<1.0	<1.0
Styrene	<1.0	<1.0
Bromoform	<1.0	<1.0
Isopropylbenzene	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0
Bromobenzene	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0
n-Propylbenzene	<1.0	<1.0
2-Chlorotoluene	<1.0	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0
1,2,4-Trimethylbenzene	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0
p-Isopropyltoluene	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0
1,4-Dichlorobenzene	<0.50	<0.50
n-Butylbenzene	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0
Naphthalene	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0

REMARKS: Sample was properly preserved and in specified container. Sample was analyzed according to EPA method

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	L-87-3 Duplicate
LAB NO.	90-3430
SAMPLE IDENTIFICATION	140101-263
REPORT DATE	03/21/90
SAMPLE SUBMITTED	02/21/90
SAMPLE DATE	02/19/90
SAMPLE TIME	1420
VOLATILE ORGANIC CONSTITUENT	ug/l
Dichlorodifluoromethane	<1.0
Chloromethane	<1.0
Vinyl chloride	<0.50
Bromomethane	<1.0
Chloroethane	<1.0
Trichlorofluoromethane	<1.0
1,1-Dichloroethene	<0.50
Methylene Chloride	<1.0
trans-1,2-Dichloroethene	<1.0
1,1-Dichloroethane	<1.0
2,2-Dichloropropane	<1.0
cis-1,2-Dichloroethene	104
Chloroform	<1.0
Bromochloromethane	<1.0
1,1,1-Trichloroethane	<0.50
Carbon Tetrachloride	<0.50
1,1-Dichloropropene	<1.0
Benzene	<0.50
1,2-Dichloroethane	<0.50
Trichloroethene	20
1,2-Dichloropropane	<1.0
Bromodichloromethane	<1.0
Dibromomethane	<1.0
Toluene	<1.0
1,1,2-Trichloroethane	<1.0
Tetrachloroethene	230
1,3-Dichloropropane	<1.0
Dibromochloromethane	<1.0
1,2-Dibromoethane	<1.0
Chlorobenzene	<1.0
1,1,1,2-Tetrachloroethane	<1.0

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L-87-3

	Duplicate
LAB NO.	90-3430
SAMPLE IDENTIFICATION	140101-263
SAMPLE DATE	03/21/90
SAMPLE SUBMITTED	02/21/90
SAMPLE DATE	02/19/90
SAMPLE TIME	1420
VOLATILE ORGANIC CONSTITUENT	ug/l
Ethylbenzene	<1.0
p-Xylene	<1.0
m-Xylene	<1.0
o-Xylene	<1.0
Styrene	<1.0
Bromoform	<1.0
Isopropylbenzene	<1.0
1,1,2,2-Tetrachloroethane	<1.0
Bromobenzene	<1.0
1,2,3-Trichloropropane	<1.0
n-Propylbenzene	<1.0
2-Chlorotoluene	<1.0
1,3,5-Trimethylbenzene	<1.0
4-Chlorotoluene	<1.0
tert-Butylbenzene	<1.0
1,2,4-Trimethylbenzene	<1.0
sec-Butylbenzene	<1.0
p-Isopropyltoluene	<1.0
1,3-Dichlorobenzene	<1.0
1,4-Dichlorobenzene	<0.50
n-Butylbenzene	<1.0
1,2-Dichlorobenzene	<1.0
1,2-Dibromo-3-Chloropropane	<1.0
1,2,4-Trichlorobenzene	<1.0
Hexachlorobutadiene	<1.0
Naphthalene	<1.0
1,2,3-Trichlorobenzene	<1.0
cis-1,3-Dichloropropene	<1.0
trans-1,3-Dichloropropene	<1.0

REMARKS: Sample was properly preserved and in specified container. Sample was analyzed according to EPA method

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

PAGE 1

	#7	LS-8	L-88-10	DUPLICATE OF L-88-10
LAB NO.	90-3425	90-3426	90-3427	90-3428
SAMPLE IDENTIFICATION	140101-258	140101-259	140101-260	140101-261
DATE REPORTED	03/21/90	03/21/90	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90	02/21/90	02/21/90
SAMPLE DATE	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE TIME	1020	1110	1140	1155
EPA METHOD 625				
ACID EXTRACTABLES	ug/l	ug/l	ug/l	ug/l
4-Chloro-3-methylphenol	<10	<10	<10	<10
2-Chlorophenol	<10	<10	<10	<10
2,4-Dichlorophenol	<10	<10	<10	<10
2,4-Dimethylphenol	<10	<10	<10	<10
2,4-Dinitrophenol	<50	<50	<50	<50
2-Methyl-4,6-dinitrophenol	<50	<50	<50	<50
2-Nitrophenol	<10	<10	<10	<10
4-Nitrophenol	<50	<50	<50	<50
Pentachlorophenol	<50	<50	<50	<50
Phenol	<10	<10	<10	<10
2,4,6-Trichlorophenol	<10	<10	<10	<10
BASE NEUTRAL EXTRACTABLES	ug/l	ug/l	ug/l	ug/l
Acenaphthene	<10	<10	<10	<10
Acenaphthylene	<10	<10	<10	<10
Anthracene	<10	<10	<10	<10
Azobenzene	<10	<10	<10	<10
Benzidine	<10	<10	<10	<10
Benzo(a)anthracene	<10	<10	<10	<10
Benzo(a)pyrene	<10	<10	<10	<10
Benzo(b)fluoranthene	<10	<10	<10	<10
Benzo(k)fluoranthene	<10	<10	<10	<10
Benzo(ghi)perylene	<10	<10	<10	<10
Bis(2-chloroethoxy)methane	<10	<10	<10	<10
Bis(2-chloroethyl)ether	<10	<10	<10	<10
Bis(2-chloroisopropyl)ether	<10	<10	<10	<10
Bis(2-ethylhexyl)phthalate	<10	<10	<10	<10
4-Bromophenylphenyl ether	<10	<10	<10	<10
Butyl benzyl phthalate	<10	<10	<10	<10

cc: Envirocon, Livingston.

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	#7	LS-8	L-88-10	DUPLICATE OF L-88-10
LAB NO.	90-3425	90-3426	90-3427	90-3428
SAMPLE IDENTIFICATION	140101-258	140101-259	140101-260	140101-261
DATE REPORTED	03/21/90	03/21/90	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90	02/21/90	02/21/90
SAMPLE DATE	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE TIME	1020	1110	1140	1155

EPA METHOD 625

BASE NEUTRAL EXTRACTABLES	ug/l	ug/l	ug/l	ug/l
2-Chloronaphthalene	<10	<10	<10	<10
4-Chlorophenylphenyl ether	<10	<10	<10	<10
Chrysene	<10	<10	<10	<10
Dibenzo(a,h)anthracene	<10	<10	<10	<10
1,2-Dichlorobenzene	<10	<10	<10	<10
1,3-Dichlorobenzene	<10	<10	<10	<10
1,4-Dichlorobenzene	<10	<10	<10	<10
3,3-Dichlorobenzidine	<10	<10	<10	<10
Diethyl phthalate	<10	<10	<10	<10
Dimethyl phthalate	<10	<10	<10	<10
Di-n-butyl phthalate	<10	<10	<10	<10
2,4-Dinitrotoluene	<10	<10	<10	<10
2,6-Dinitrotoluene	<10	<10	<10	<10
Di-n-octyl phthalate	<10	<10	<10	<10
Fluoranthene	<10	<10	<10	<10
Fluorene	<10	<10	<10	<10
Hexachlorobenzene	<10	<10	<10	<10
Hexachlorobutadiene	<10	<10	<10	<10
Hexachloroethane	<10	<10	<10	<10
Indeno(1,2,3-cd)pyrene	<10	<10	<10	<10
Isophorone	<10	<10	<10	<10
Naphthalene	<10	<10	<10	<10
Nitrobenzene	<10	<10	<10	<10
N-Nitrosophenylamine	<10	<10	<10	<10
N-Nitrosodi-n-propylamine	<10	<10	<10	<10
Phenanthrene	<10	<10	<10	<10
Pyrene	<10	<10	<10	<10
1,2,4-Trichlorobenzene	<10	<10	<10	<10

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

		L-87-3	L-87-2	L-88-12
LAB NO.	90-3429	90-3430	90-3431	90-3432
SAMPLE IDENTIFICATION	140101-262	140101-263	140101-264	140101-265
DATE REPORTED	03/21/90	03/21/90	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90	02/21/90	02/21/90
SAMPLE DATE	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE TIME	1245	1420	1450	1540
EPA METHOD 625				
ACID EXTRACTABLES	ug/l	ug/l	ug/l	ug/l
4-Chloro-3-methylphenol	<10	<10	<10	<10
2-Chlorophenol	<10	<10	<10	<10
2,4-Dichlorophenol	<10	<10	<10	<10
2,4-Dimethylphenol	<10	<10	<10	<10
2,4-Dinitrophenol	<50	<50	<50	<50
2-Methyl-4,6-dinitrophenol	<50	<50	<50	<50
2-Nitrophenol	<10	<10	<10	<10
4-Nitrophenol	<50	<50	<50	<50
Pentachlorophenol	<50	<50	<50	<50
Phenol	<10	<10	<10	<10
2,4,6-Trichlorophenol	<10	<10	<10	<10
BASE NEUTRAL EXTRACTABLES	ug/l	ug/l	ug/l	ug/l
Acenaphthene	<10	<10	<10	<10
Acenaphthylene	<10	<10	<10	<10
Anthracene	<10	<10	<10	<10
Azobenzene	<10	<10	<10	<10
Benzidine	<10	<10	<10	<10
Benzo(a)anthracene	<10	<10	<10	<10
Benzo(a)pyrene	<10	<10	<10	<10
Benzo(b)fluoranthene	<10	<10	<10	<10
Benzo(k)fluoranthene	<10	<10	<10	<10
Benzo(ghi)perylene	<10	<10	<10	<10
Bis(2-chloroethoxy)methane	<10	<10	<10	<10
Bis(2-chloroethyl)ether	<10	<10	<10	<10
Bis(2-chloroisopropyl)ether	<10	<10	<10	<10
Bis(2-ethylhexyl)phthalate	<10	<10	<10	<10
4-Bromophenylphenyl ether	<10	<10	<10	<10
Butyl benzyl phthalate	<10	<10	<10	<10

cc: Envirocon, Livingston.

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		L-87-3	L-87-2	L-88-12
LAB NO.	90-3429	90-3430	90-3431	90-3432
SAMPLE IDENTIFICATION	140101-262	140101-263	140101-264	140101-265
DATE REPORTED	03/21/90	03/21/90	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90	02/21/90	02/21/90
SAMPLE DATE	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE TIME	1245	1420	1450	1540
EPA METHOD 625				
BASE NEUTRAL EXTRACTABLES	ug/l	ug/l	ug/l	ug/l
2-Chloronaphthalene	<10	<10	<10	<10
4-Chlorophenylphenyl ether	<10	<10	<10	<10
Chrysene	<10	<10	<10	<10
Dibenzo(a,h)anthracene	<10	<10	<10	<10
1,2-Dichlorobenzene	<10	<10	<10	<10
1,3-Dichlorobenzene	<10	<10	<10	<10
1,4-Dichlorobenzene	<10	<10	<10	<10
3,3-Dichlorobenzidine	<10	<10	<10	<10
Diethyl phthalate	<10	<10	<10	<10
Dimethyl phthalate	<10	<10	<10	<10
Di-n-butyl phthalate	<10	<10	<10	<10
2,4-Dinitrotoluene	<10	<10	<10	<10
2,6-Dinitrotoluene	<10	<10	<10	<10
Di-n-octyl phthalate	<10	<10	<10	<10
Fluoranthene	<10	<10	<10	<10
Fluorene	<10	<10	<10	<10
Hexachlorobenzene	<10	<10	<10	<10
Hexachlorobutadiene	<10	<10	<10	<10
Hexachloroethane	<10	<10	<10	<10
Indeno(1,2,3-cd)pyrene	<10	<10	<10	<10
Isophorone	<10	<10	<10	<10
Naphthalene	<10	<10	<10	<10
Nitrobenzene	<10	<10	<10	<10
N-Nitrosophenylamine	<10	<10	<10	<10
N-Nitrosodi-n-propylamine	<10	<10	<10	<10
Phenanthrene	<10	<10	<10	<10
Pyrene	<10	<10	<10	<10
1,2,4-Trichlorobenzene	<10	<10	<10	<10

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	POTW	#5	GEYSER TC	L-STREET
LAB NO.	90-3433	90-3434	90-3435	90-3436
SAMPLE IDENTIFICATION	140101-266	140101-267	140101-268	140101-269
DATE REPORTED	03/21/90	03/21/90	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90	02/21/90	02/21/90
SAMPLE DATE	02/20/90	02/20/90	02/20/90	02/20/90
SAMPLE TIME	0900	1040	1220	1400
EPA METHOD 625				
ACID EXTRACTABLES	ug/l	ug/l	ug/l	ug/l
4-Chloro-3-methylphenol	<10	<10	<10	<10
2-Chlorophenol	<10	<10	<10	<10
2,4-Dichlorophenol	<10	<10	<10	<10
2,4-Dimethylphenol	<10	<10	<10	<10
2,4-Dinitrophenol	<50	<50	<50	<50
2-Methyl-4,6-dinitrophenol	<50	<50	<50	<50
2-Nitrophenol	<10	<10	<10	<10
4-Nitrophenol	<50	<50	<50	<50
Pentachlorophenol	<50	<50	<50	<50
Phenol	<10	<10	<10	<10
2,4,6-Trichlorophenol	<10	<10	<10	<10
BASE NEUTRAL EXTRACTABLES	ug/l	ug/l	ug/l	ug/l
Acenaphthene	<10	<10	<10	<10
Acenaphthylene	<10	<10	<10	<10
Anthracene	<10	<10	<10	<10
Azobenzene	<10	<10	<10	<10
Benzidine	<10	<10	<10	<10
Benzo(a)anthracene	<10	<10	<10	<10
Benzo(a)pyrene	<10	<10	<10	<10
Benzo(b)fluoranthene	<10	<10	<10	<10
Benzo(k)fluoranthene	<10	<10	<10	<10
Benzo(ghi)perylene	<10	<10	<10	<10
Bis(2-chloroethoxy)methane	<10	<10	<10	<10
Bis(2-chloroethyl)ether	<10	<10	<10	<10
Bis(2-chloroisopropyl)ether	<10	<10	<10	<10
Bis(2-ethylhexyl)phthalate	<10	<10	<10	<10
4-Bromophenylphenyl ether	<10	<10	<10	<10
Butyl benzyl phthalate	<10	<10	<10	<10

cc: Envirocon, Livingston.

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	POTW	#5	GEYSER TC	L STREET
LAB NO.	90-3433	90-3434	90-3435	90-3436
SAMPLE IDENTIFICATION	140101-266	140101-267	140101-268	140101-269
DATE REPORTED	03/21/90	03/21/90	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90	02/21/90	02/21/90
SAMPLE DATE	02/20/90	02/20/90	02/20/90	02/20/90
SAMPLE TIME	0900	1040	1220	1400
EPA METHOD 625				
BASE NEUTRAL EXTRACTABLES	ug/l	ug/l	ug/l	ug/l
2-Chloronaphthalene	<10	<10	<10	<10
4-Chlorophenylphenyl ether	<10	<10	<10	<10
Chrysene	<10	<10	<10	<10
Dibenzo(a,h)anthracene	<10	<10	<10	<10
1,2-Dichlorobenzene	<10	<10	<10	<10
1,3-Dichlorobenzene	<10	<10	<10	<10
1,4-Dichlorobenzene	<10	<10	<10	<10
3,3-Dichlorobenzidine	<10	<10	<10	<10
Diethyl phthalate	<10	<10	<10	<10
Dimethyl phthalate	<10	<10	<10	<10
Di-n-butyl phthalate	<10	<10	<10	<10
2,4-Dinitrotoluene	<10	<10	<10	<10
2,6-Dinitrotoluene	<10	<10	<10	<10
Di-n-octyl phthalate	<10	<10	<10	<10
Fluoranthene	<10	<10	<10	<10
Fluorene	<10	<10	<10	<10
Hexachlorobenzene	<10	<10	<10	<10
Hexachlorobutadiene	<10	<10	<10	<10
Hexachloroethane	<10	<10	<10	<10
Indeno(1,2,3-cd)pyrene	<10	<10	<10	<10
Isophorone	<10	<10	<10	<10
Naphthalene	<10	<10	<10	<10
Nitrobenzene	<10	<10	<10	<10
N-Nitrosophenylamine	<10	<10	<10	<10
N-Nitrosodi-n-propylamine	<10	<10	<10	<10
Phenanthrene	<10	<10	<10	<10
Pyrene	<10	<10	<10	<10
1,2,4-Trichlorobenzene	<10	<10	<10	<10

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	Q STREET	RAINBOW MOTEL
LAB NO.	90-3437	90-3438
SAMPLE IDENTIFICATION	140101-270	140101-271
DATE REPORTED	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90
SAMPLE DATE	02/20/90	02/20/90
SAMPLE TIME	1420	1530
EPA METHOD 625		
ACID EXTRACTABLES	ug/l	ug/l
4-Chloro-3-methylphenol	<10	<10
2-Chlorophenol	<10	<10
2,4-Dichlorophenol	<10	<10
2,4-Dimethylphenol	<10	<10
2,4-Dinitrophenol	<50	<50
2-Methyl-4,6-dinitrophenol	<50	<50
2-Nitrophenol	<10	<10
4-Nitrophenol	<50	<50
Pentachlorophenol	<50	<50
Phenol	<10	<10
2,4,6-Trichlorophenol	<10	<10
BASE NEUTRAL EXTRACTABLES	ug/l	ug/l
Acenaphthene	<10	<10
Acenaphthylene	<10	<10
Anthracene	<10	<10
Azobenzene	<10	<10
Benzidine	<10	<10
Benzo(a)anthracene	<10	<10
Benzo(a)pyrene	<10	<10
Benzo(b)fluoranthene	<10	<10
Benzo(k)fluoranthene	<10	<10
Benzo(ghi)perylene	<10	<10
Bis(2-chloroethoxy)methane	<10	<10
Bis(2-chloroethyl)ether	<10	<10
Bis(2-chloroisopropyl)ether	<10	<10
Bis(2-ethylhexyl)phthalate	<10	<10
4-Bromophenylphenyl ether	<10	<10
Butyl benzyl phthalate	<10	<10

cc: Envirocon, Livingston.

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	Q STREET	RAINBOW MOTEL
LAB NO.	90-3437	90-3438
SAMPLE IDENTIFICATION	140101-270	140101-271
DATE REPORTED	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90
SAMPLE DATE	02/20/90	02/20/90
SAMPLE TIME	1420	1530

EPA METHOD 625

BASE NEUTRAL EXTRACTABLES	ug/l	ug/l
2-Chloronaphthalene	<10	<10
4-Chlorophenylphenyl ether	<10	<10
Chrysene	<10	<10
Dibenzo(a,h)anthracene	<10	<10
1,2-Dichlorobenzene	<10	<10
1,3-Dichlorobenzene	<10	<10
1,4-Dichlorobenzene	<10	<10
3,3-Dichlorobenzidine	<10	<10
Diethyl phthalate	<10	<10
Dimethyl phthalate	<10	<10
Di-n-butyl phthalate	<10	<10
2,4-Dinitrotoluene	<10	<10
2,6-Dinitrotoluene	<10	<10
Di-n-octyl phthalate	<10	<10
Fluoranthene	<10	<10
Fluorene	<10	<10
Hexachlorobenzene	<10	<10
Hexachlorobutadiene	<10	<10
Hexachloroethane	<10	<10
Indeno(1,2,3-cd)pyrene	<10	<10
Isophorone	<10	<10
Naphthalene	<10	<10
Nitrobenzene	<10	<10
N-Nitrosophenylamine	<10	<10
N-Nitrosodi-n-propylamine	<10	<10
Phenanthrene	<10	<10
Pyrene	<10	<10
1,2,4-Trichlorobenzene	<10	<10

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

L-87-3

	Duplicate
LAB NO.	90-3430
SAMPLE IDENTIFICATION	140101-263
DATE REPORTED	03/21/90
SAMPLE SUBMITTED	02/21/90
SAMPLE DATE	02/19/90
SAMPLE TIME	1420

EPA METHOD 625

ACID EXTRACTABLES	ug/l
4-Chloro-3-methylphenol	<10
2-Chlorophenol	<10
2,4-Dichlorophenol	<10
2,4-Dimethylphenol	<10
2,4-Dinitrophenol	<50
2-Methyl-4,6-dinitrophenol	<50
2-Nitrophenol	<10
4-Nitrophenol	<50
Pentachlorophenol	<50
Phenol	<10
2,4,6-Trichlorophenol	<10

BASE NEUTRAL EXTRACTABLES	ug/l
Acenaphthene	<10
Acenaphthylene	<10
Anthracene	<10
Azobenzene	<10
Benzidine	<10
Benzo(a)anthracene	<10
Benzo(a)pyrene	<10
Benzo(b)fluoranthene	<10
Benzo(k)fluoranthene	<10
Benzo(ghi)perylene	<10
Bis(2-chloroethoxy)methane	<10
Bis(2-chloroethyl)ether	<10
Bis(2-chloroisopropyl)ether	<10
Bis(2-ethylhexyl)phthalate	<10
4-Bromophenylphenyl ether	<10
Butyl benzyl phthalate	<10

cc: Envirocon, Livingston.

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L-87-3

	Duplicate
LAB NO.	90-3430
SAMPLE IDENTIFICATION	140101-263
DATE REPORTED	03/21/90
SAMPLE SUBMITTED	02/21/90
SAMPLE DATE	02/19/90
SAMPLE TIME	1420

EPA METHOD 625

BASE NEUTRAL EXTRACTABLES	ug/l
2-Chloronaphthalene	<10
4-Chlorophenylphenyl ether	<10
Chrysene	<10
Dibenzo(a,h)anthracene	<10
1,2-Dichlorobenzene	<10
1,3-Dichlorobenzene	<10
1,4-Dichlorobenzene	<10
3,3-Dichlorobenzidine	<10
Diethyl phthalate	<10
Dimethyl phthalate	<10
Di-n-butyl phthalate	<10
2,4-Dinitrotoluene	<10
2,6-Dinitrotoluene	<10
Di-n-octyl phthalate	<10
Fluoranthene	<10
Fluorene	<10
Hexachlorobenzene	<10
Hexachlorobutadiene	<10
Hexachloroethane	<10
Indeno(1,2,3-cd)pyrene	<10
Isophorone	<10
Naphthalene	<10
Nitrobenzene	<10
N-Nitrosophenylamine	<10
N-Nitrosodi-n-propylamine	<10
Phenanthrene	<10
Pyrene	<10
1,2,4-Trichlorobenzene	<10

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN	#7	LS-8	L-88-10	DUPLICATE OF L-88-10
LAB NO.	90-3425	90-3426	90-3427	90-3428
SAMPLE IDENTIFICATION	140101-258	140101-259	140101-260	140101-261
DATE REPORTED	03/21/90	03/21/90	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90	02/21/90	02/21/90
SAMPLE DATE	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE TIME	1020	1110	1140	1155
Pesticides and PCBs (EPA Method 608)	ug/l	ug/l	ug/l	ug/l
Aldrin	<0.05	<0.05	<0.05	<0.05
alpha BHC	<0.05	<0.05	<0.05	<0.05
beta BHC	<0.05	<0.05	<0.05	<0.05
delta BHC	<0.05	<0.05	<0.05	<0.05
gamma BHC	<0.05	<0.05	<0.05	<0.05
Chlordane	<0.10	<0.10	<0.10	<0.10
4,4'-DDD	<0.10	<0.10	<0.10	<0.10
4,4'DDE	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	<0.10	<0.10	<0.10	<0.10
Dieldrin	<0.05	<0.05	<0.05	<0.05
Endosulfan I	<0.10	<0.10	<0.10	<0.10
Endosulfan II	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	<0.10	<0.10	<0.10	<0.10
Endrin	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	<0.10	<0.10	<0.10	<0.10
Heptachlor	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	<0.10	<0.10	<0.10	<0.10
Toxaphene	<1.0	<1.0	<1.0	<1.0
PCB-1016	<1.0	<1.0	<1.0	<1.0
PCB-1221	<1.0	<1.0	<1.0	<1.0
PCB-1232	<1.0	<1.0	<1.0	<1.0
PCB-1242	<1.0	<1.0	<1.0	<1.0
PCB-1248	<1.0	<1.0	<1.0	<1.0
PCB-1254	<1.0	<1.0	<1.0	<1.0
PCB-1260	<1.0	<1.0	<1.0	<1.0

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

		L-87-3	L-87-2	L-88-12
LAB NO.	90-3429	90-3430	90-3431	90-3432
SAMPLE IDENTIFICATION	140101-262	140101-263	140101-264	140101-265
DATE REPORTED	03/21/90	03/21/90	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90	02/21/90	02/21/90
SAMPLE DATE	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE TIME	1245	1420	1450	1540
Pesticides and PCBs (EPA Method 608)	ug/l	ug/l	ug/l	ug/l
Aldrin	<0.05	<0.05	<0.05	<0.05
alpha BHC	<0.05	<0.05	<0.05	<0.05
beta BHC	<0.05	<0.05	<0.05	<0.05
delta BHC	<0.05	<0.05	<0.05	<0.05
gamma BHC	<0.05	<0.05	<0.05	<0.05
Chlordane	<0.10	<0.10	<0.10	<0.10
4,4'-DDD	<0.10	<0.10	<0.10	<0.10
4,4'DDE	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	<0.10	<0.10	<0.10	<0.10
Dieldrin	<0.05	<0.05	<0.05	<0.05
Endosulfan I	<0.10	<0.10	<0.10	<0.10
Endosulfan II	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	<0.10	<0.10	<0.10	<0.10
Endrin	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	<0.10	<0.10	<0.10	<0.10
Heptachlor	<1.0	<1.0	<1.0	<1.0
Heptachlor epoxide	<1.0	<1.0	<1.0	<1.0
Toxaphene	<1.0	<1.0	<1.0	<1.0
PCB-1016	<1.0	<1.0	<1.0	<1.0
PCB-1221	<1.0	<1.0	<1.0	<1.0
PCB-1232	<1.0	<1.0	<1.0	<1.0
PCB-1242	<1.0	<1.0	<1.0	<1.0
PCB-1248	<1.0	<1.0	<1.0	<1.0
PCB-1254	<1.0	<1.0	<1.0	<1.0
PCB-1260	<1.0	<1.0	<1.0	<1.0

cc: Envirocon, Livingston.

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PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	POTW	#5	GEYSER TC	L STREET
LAB NO.	90-3433	90-3434	90-3435	90-3436
SAMPLE IDENTIFICATION	140101-266	140101-267	140101-268	140101-269
DATE REPORTED	03/21/90	03/21/90	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90	02/21/90	02/21/90
SAMPLE DATE	02/20/90	02/20/90	02/20/90	02/20/90
SAMPLE TIME	0900	1040	1220	1400
Pesticides and PCBs (EPA Method 608)	ug/l	ug/l	ug/l	ug/l
Aldrin	<0.05	<0.05	<0.05	<0.05
alpha BHC	<0.05	<0.05	<0.05	<0.05
beta BHC	<0.05	<0.05	<0.05	<0.05
delta BHC	<0.05	<0.05	<0.05	<0.05
gamma BHC	<0.05	<0.05	<0.05	<0.05
Chlordane	<0.10	<0.10	<0.10	<0.10
4,4'-DDD	<0.10	<0.10	<0.10	<0.10
4,4'DDE	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	<0.10	<0.10	<0.10	<0.10
Dieldrin	<0.05	<0.05	<0.05	<0.05
Endosulfan I	<0.10	<0.10	<0.10	<0.10
Endosulfan II	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	<0.10	<0.10	<0.10	<0.10
Endrin	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	<0.10	<0.10	<0.10	<0.10
Heptachlor	<1.0	<1.0	<1.0	<1.0
Heptachlor epoxide	<1.0	<1.0	<1.0	<1.0
Toxaphene	<1.0	<1.0	<1.0	<1.0
PCB-1016	<1.0	<1.0	<1.0	<1.0
PCB-1221	<1.0	<1.0	<1.0	<1.0
PCB-1232	<1.0	<1.0	<1.0	<1.0
PCB-1242	<1.0	<1.0	<1.0	<1.0
PCB-1248	<1.0	<1.0	<1.0	<1.0
PCB-1254	<1.0	<1.0	<1.0	<1.0
PCB-1260	<1.0	<1.0	<1.0	<1.0

cc: Envirocon, Livingston.

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PO BOX 8243
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WATER ANALYSIS

PROJECT: Livingston / BN

	Q STREET	RAINBOW MOTEL
LAB NO.	90-3437	90-3438
SAMPLE IDENTIFICATION	140101-270	140101-271
DATE REPORTED	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90
SAMPLE DATE	02/20/90	02/20/90
SAMPLE TIME	1420	1530
Pesticides and PCBs (EPA Method 608)		
Aldrin	<0.05	<0.05
alpha BHC	<0.05	<0.05
beta BHC	<0.05	<0.05
delta BHC	<0.05	<0.05
gamma BHC	<0.05	<0.05
Chlordane	<0.10	<0.10
4,4'-DDD	<0.10	<0.10
4,4'DDE	<0.05	<0.05
4,4'-DDT	<0.10	<0.10
Dieldrin	<0.05	<0.05
Endosulfan I	<0.10	<0.10
Endosulfan II	<0.05	<0.05
Endosulfan sulfate	<0.10	<0.10
Endrin	<0.05	<0.05
Endrin aldehyde	<0.10	<0.10
Heptachlor	<1.0	<1.0
Heptachlor epoxide	<1.0	<1.0
Toxaphene	<1.0	<1.0
PCB-1016	<1.0	<1.0
PCB-1221	<1.0	<1.0
PCB-1232	<1.0	<1.0
PCB-1242	<1.0	<1.0
PCB-1248	<1.0	<1.0
PCB-1254	<1.0	<1.0
PCB-1260	<1.0	<1.0

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WATER ANALYSIS

PROJECT: Livingston / BN	#7	LS-8	L-88-10	DUPLICATE OF L-88-10
LAB NO.	90-3425	90-3426	90-3427	90-3428
SAMPLE IDENTIFICATION	140101-258	140101-259	140101-260	140101-261
REPORT DATE	03/21/90	03/21/90	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90	02/21/90	02/21/90
SAMPLE DATE	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE TIME	1020	1110	1140	1155
DISSOLVED METALS:	mg/l	mg/l	mg/l	mg/l
Arsenic	<0.005	0.006	<0.005	<0.005
Barium	<0.1	<0.1	<0.1	<0.1
Cadmium	<0.001	<0.001	<0.001	<0.001
Chromium	<0.02	<0.02	<0.02	<0.02
Lead	<0.01	<0.01	<0.01	<0.01
Mercury	<0.001	<0.001	<0.001	<0.001
Selenium	<0.005	<0.005	<0.005	<0.005
Silver	<0.005	<0.005	<0.005	<0.005
Total Petroleum Hydrocarbons	<0.1	0.6	<0.1	<0.1

cc: Envirocon, Livingston.

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WATER ANALYSIS

PROJECT: Livingston / BN

		L-87-3	L-87-2	L-88-12
LAB NO.	90-3429	90-3430	90-3431	90-3432
SAMPLE IDENTIFICATION	140101-262	140101-263	140101-264	140101-265
REPORT DATE	03/21/90	03/21/90	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90	02/21/90	02/21/90
SAMPLE DATE	02/19/90	02/19/90	02/19/90	02/19/90
SAMPLE TIME	1245	1420	1450	1540
DISSOLVED METALS:	mg/l	mg/l	mg/l	mg/l
Arsenic	<0.005	<0.005	<0.005	<0.005
Barium	<0.1	<0.1	<0.1	<0.1
Cadmium	<0.001	<0.001	<0.001	<0.001
Chromium	<0.02	<0.02	<0.02	<0.02
Lead	<0.01	<0.01	<0.01	<0.01
Mercury	<0.001	<0.001	<0.001	<0.001
Selenium	<0.005	<0.005	<0.005	<0.005
Silver	<0.005	<0.005	<0.005	<0.005
Total Petroleum Hydrocarbons	<0.1	<0.1	1.3	0.3

cc: Envirocon, Livingston.

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WATER ANALYSIS

PROJECT: Livingston / BN

	POTW	#5	GEYSER TC	L STREET
LAB NO.	90-3433	90-3434	90-3435	90-3436
SAMPLE IDENTIFICATION	140101-266	140101-267	140101-268	140101-269
REPORT DATE	03/21/90	03/21/90	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90	02/21/90	02/21/90
SAMPLE DATE	02/20/90	02/20/90	02/20/90	02/20/90
SAMPLE TIME	0900	1040	1220	1400
DISSOLVED METALS:	mg/l	mg/l	mg/l	mg/l
Arsenic	<0.005	<0.005	0.015	0.009
Barium	<0.1	<0.1	<0.1	<0.1
Cadmium	<0.001	<0.001	<0.001	<0.001
Chromium	<0.02	<0.02	<0.02	<0.02
Lead	<0.01	<0.01	<0.01	<0.01
Mercury	<0.001	<0.001	<0.001	<0.001
Selenium	<0.005	<0.005	<0.005	<0.005
Silver	<0.005	<0.005	<0.005	<0.005
Total Petroleum Hydrocarbons	0.3	<0.1	<0.1	<0.1

cc: Envirocon, Livingston.

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WATER ANALYSIS

PROJECT: Livingston / BN

	Q STREET	RAINBOW MOTEL
LAB NO.	90-3437	90-3438
SAMPLE IDENTIFICATION	140101-270	140101-271
REPORT DATE	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90
SAMPLE DATE	02/20/90	02/20/90
SAMPLE TIME	1420	1530
DISSOLVED METALS:	mg/l	mg/l
Arsenic	0.006	<0.005
Barium	<0.1	<0.1
Cadmium	<0.001	<0.001
Chromium	<0.02	<0.02
Lead	<0.01	<0.01
Mercury	<0.001	<0.001
Selenium	<0.005	<0.005
Silver	<0.005	<0.005
Total Petroleum Hydrocarbons	<0.1	<0.1

cc: Envirocon, Livingston.

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WATER ANALYSIS

PROJECT: Livingston / BN

	L-87-3 Duplicate	L-87-2 Spike
LAB NO.	90-3430	90-3431
SAMPLE IDENTIFICATION	140101-263	140101-264
REPORT DATE	03/21/90	03/21/90
SAMPLE SUBMITTED	02/21/90	02/21/90
SAMPLE DATE	02/19/90	02/19/90
SAMPLE TIME	1420	1450
DISSOLVED METALS:	mg/l	% Recovery
Arsenic	<0.005	111
Barium	<0.1	109
Cadmium	<0.001	100
Chromium	<0.02	90
Lead	<0.01	102
Mercury	<0.001	100
Selenium	<0.005	97
Silver	<0.005	105

Total Petroleum Hydrocarbons

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QUALITY ASSURANCE SPIKE ANALYSIS

PROJECT: Livingston / BN

CONSTITUENT	Spike Amount, ug/l	P (%)	Range for P (%)
Phenol	100	91	5-112
2-Chlorophenol	100	81	23-134
4-Chloro-3-methylphenol	100	76	22-147
4-Nitrophenol	100	114	D-132
Pentachlorophenol	100	125	14-176
1,4-Dichlorobenzene	50	78	20-124
N-Nitroso-di-n-propylamine	50	98	D-230
1,2,4-Trichlorobenzene	50	93	44-142
Acenaphthene	50	80	47-145
2,4-Dinitrotoluene	50	114	39-139
Pyrene	50	74	53-115

P = Percent recovery measured.

Lab No. 90-3431 was spiked with the above constituent with these results.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

EPA QUALITY CONTROL SAMPLES

GC/MS BASE NEUTRALS

PROJECT: Livingston / BN

PARAMETER	True Value, ug/l	P (%)	Range for P, Ps (%)
1,4-Dichlorobenzene	50	76	20-124
Hexachloroethane	50	76	40-113
Nitrobenzene	50	89	35-180
Naphthalene	50	76	21-133
Dimethyl Phthalate	50	84	D-112
Acenaphthene	50	73	47-145
Fluorene	50	80	59-121
4-Chlorophenyl phenyl ether	50	70	25-158
4-Bromophenyl phenyl ether	50	82	53-127
Anthracene	50	80	27-133
Fluoranthene	50	77	26-137
Butyl benzyl phthalate	50	93	D-152
Chrysene	50	82	17-168
Bis (2-Ethyl Hexyl) Phthalate	50	74	8-158
Benzo (b) Fluoranthene	50	87	24-159
Benzo (a) pyrene	50	92	17-163
Dibenzo (a,h) anthracene	50	82	D-227
Benzo (g,h,i) perylene	50	81	D-219

P, Ps = Percent recovery measured.

This EPA Reference sample was analyzed with your
Lab no.s 90-3425 thru 90-3438.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

PROJECT: Livingston / BN

Quality Assurance Spiked Analysis

CONSTITUENT	Spike Amount ug/l	P (%)	Range for P (%)
1,1-Dichloroethene	5.0	94	60-140
Benzene	5.0	130	60-140
Trichloroethene	5.0	84	60-140
Toluene	5.0	135	60-140
Chlorobenzene	5.0	133	60-140

P = percent recovery measured.

NOTE: Lab no. 90-3431 was spiked with the above constituents with these results.

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ENVIROCON
PO BOX 8243
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EPA WATER SUPPLY QUALITY
CONTROL SAMPLE

Volatile Organic Contaminants

PROJECT: Livingston / BN

PARAMETER	True Value, ug/l	P (%)	Range for P (%)
Toluene	5.0	111	60-140
Chlorobenzene	5.0	112	60-140
Isopropylbenzene	5.0	115	60-140
Sec-Butylbenzene	5.0	130	60-140
1,2,4-Trimethylbenzene	5.0	105	60-140
n-Butylbenzene	5.0	119	60-140
1,2-Dichlorobenzene	5.0	116	60-140

P = Percent recovery measured.

This EPA Quality Control sample was analyzed with your lab no.s 90-3425 thru 90-3438 with the above results.

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ENVIROCON
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EPA WATER POLLUTION
QUALITY CONTROL SAMPLES

PROJECT: Livingston / BN

PARAMETER	True Value ug/l	P (%)	Range for P,Ps (%)
Heptachlor	2.0	100	42-122
Aldrin	2.0	83	34-111
DDE	2.0	112	30-145
Dieldrin	2.0	112	36-146
DDD	10.0	65	31-141
DDT	10.0	65	25-150
BETA-BHC	2.0	103	17-147
Heptachlor Epoxide	2.0	73	37-142
Endosulfan I	2.0	75	45-153
Endosulfan II	10.0	109	D-202
Endrin Aldehyde	10.0	82	1.19-15.4

P, Ps = Percent Recovery measured.

This EPA Reference sample was analyzed with your
Lab No.s 90-3425 thru 90-3438.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

QUALITY ASSURANCE SPIKED ANALYSIS

PROJECT: Livingston / BN

CONSTITUENT	Spike Amount ug/l	P (%)	Range for P (%)
Heptachlor	2.0	84	42-122
Aldrin	2.0	83	34-111
DDE	2.0	115	30-145
Dieldrin	2.0	115	36-146
DDD	10.0	66	31-141
DDT	10.0	58	25-160

P = Percent recovery measured.

Lab No. 90-3431 was spiked with the above constituents with these results.

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WATER ANALYSIS

PROJECT: Livingston / BN

PAGE 1

	89-2	89-8	89-3
LAB NO.	90-3694	90-3695	90-3696
SAMPLE IDENTIFICATION	140101-272	140101-273	140101-274
DATE REPORTED	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/26/90	02/26/90	02/26/90
SAMPLE DATE	02/23/90	02/23/90	02/23/90
SAMPLE TIME	1130	1430	1715
EPA METHOD 625			
ACID EXTRACTABLES	ug/l	ug/l	ug/l
4-Chloro-3-methylphenol	<10	<10	<10
2-Chlorophenol	<10	<10	<10
2,4-Dichlorophenol	<10	<10	<10
2,4-Dimethylphenol	<10	<10	<10
2,4-Dinitrophenol	<50	<50	<50
2-Methyl-4,6-dinitrophenol	<50	<50	<50
2-Nitrophenol	<10	<10	<10
4-Nitrophenol	<50	<50	<50
Pentachlorophenol	<50	<50	<50
Phenol	<10	<10	<10
2,4,6-Trichlorophenol	<10	<10	<10
BASE NEUTRAL EXTRACTABLES	ug/l	ug/l	ug/l
Acenaphthene	<10	<10	<10
Acenaphthylene	<10	<10	<10
Anthracene	<10	<10	<10
Azobenzene	<10	<10	<10
Benzidine	<10	<10	<10
Benzo(a)anthracene	<10	<10	<10
Benzo(a)pyrene	<10	<10	<10
Benzo(b)fluoranthene	<10	<10	<10
Benzo(k)fluoranthene	<10	<10	<10
Benzo(ghi)perylene	<10	<10	<10
Bis(2-chloroethoxy)methane	<10	<10	<10
Bis(2-chloroethyl)ether	<10	<10	<10
Bis(2-chloroisopropyl)ethe	<10	<10	<10
Bis(2-ethylhexyl)phthalate	<10	<10	<10
4-Bromophenylphenyl ether	<10	<10	<10
Butyl benzyl phthalate	<10	<10	<10

cc: Envirocon, Livingston.

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	89-2	89-8	89-3
LAB NO.	90-3694	90-3695	90-3696
SAMPLE IDENTIFICATION	140101-272	140101-273	140101-274
DATE REPORTED	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/26/90	02/26/90	02/26/90
SAMPLE DATE	02/23/90	02/23/90	02/23/90
SAMPLE TIME	1130	1430	1715

EPA METHOD 625

BASE NEUTRAL EXTRACTABLES	ug/l	ug/l	ug/l
2-Chloronaphthalene	<10	<10	<10
4-Chlorophenylphenyl ether	<10	<10	<10
Chrysene	<10	<10	<10
Dibenzo(a,h)anthracene	<10	<10	<10
1,2-Dichlorobenzene	<10	<10	<10
1,3-Dichlorobenzene	<10	<10	<10
1,4-Dichlorobenzene	<10	<10	<10
3,3-Dichlorobenzidine	<10	<10	<10
Diethyl phthalate	<10	<10	<10
Dimethyl phthalate	<10	<10	<10
Di-n-butyl phthalate	<10	<10	<10
2,4-Dinitrotoluene	<10	<10	<10
2,6-Dinitrotoluene	<10	<10	<10
Di-n-octyl phthalate	<10	<10	<10
Fluoranthene	<10	<10	<10
Fluorene	<10	<10	<10
Hexachlorobenzene	<10	<10	<10
Hexachlorobutadiene	<10	<10	<10
Hexachloroethane	<10	<10	<10
Indeno(1,2,3-cd)pyrene	<10	<10	<10
Isophorone	<10	<10	<10
Naphthalene	<10	<10	<10
Nitrobenzene	<10	<10	<10
N-Nitrosophenylamine	<10	<10	<10
N-Nitrosodi-n-propylamine	<10	<10	<10
Phenanthrene	<10	<10	<10
Pyrene	<10	<10	<10
1,2,4-Trichlorobenzene	<10	<10	<10

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EPA QUALITY CONTROL SAMPLES

BASE NEUTRALS - II

PROJECT: Livingston / BN

PARAMETER	True Value, ug/l	P (%)	Range for P, Ps (%)
1,4-Dichlorobenzene	50	81	20-124
Hexachloroethane	50	83	40-113
Nitrobenzene	50	106	35-180
Naphthalene	50	95	21-133
Dimethyl Phthalate	50	92	D-112
Acenaphthene	50	82	47-145
Fluorene	50	86	59-121
4-Chlorophenyl phenyl ether	50	80	25-158
4-Bromophenyl phenyl ether	50	90	53-127
Anthracene	50	88	27-133
Fluoranthene	50	87	26-137
Butyl benzyl phthalate	50	106	D-152
Chrysene	50	94	17-168
Bis (2-Ethyl Hexyl) Phthalate	50	85	8-158
Benzo (b) Fluoranthene	50	94	24-159
Benzo (a) pyrene	50	86	17-163
Dibenzo (a,h) anthracene	50	88	D-227
Benzo (g,h,i) perylene	50	82	D-219

P = Percent recovery measured.

This EPA Reference sample was analyzed with your
Lab no.s 90-3694 thru 90-3696.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	89-2	89-8	89-3
LAB NO.	90-3694	90-3695	90-3696
SAMPLE IDENTIFICATION	140101-272	140101-273	140101-274
REPORT DATE	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/26/90	02/26/90	02/26/90
SAMPLE DATE	02/23/90	02/23/90	02/23/90
SAMPLE TIME	1130	1430	1715
Dissolved Metals	mg/l	mg/l	mg/l
Arsenic	<0.005	<0.005	<0.005
Barium	<0.1	<0.1	<0.1
Cadmium	<0.001	<0.001	<0.001
Chromium	<0.02	<0.02	<0.02
Lead	<0.01	<0.01	<0.01
Mercury	<0.001	<0.001	<0.001
Selenium	<0.005	<0.005	<0.005
Silver	<0.005	<0.005	<0.005

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	89-2	89-8	89-3	TRIP BLANK
LAB NO.	90-3694	90-3695	90-3696	90-3697
SAMPLE IDENTIFICATION	140101-272	140101-273	140101-274	140101-275
REPORT DATE	03/20/90	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/26/90	02/26/90	02/26/90	02/26/90
SAMPLE DATE	02/23/90	02/23/90	02/23/90	02/23/90
SAMPLE TIME	1130	1430	1715	1515
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0
Chloromethane	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	<0.50	<0.50	<0.50	<0.50
Bromomethane	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0
Chloroform	<1.0	<1.0	<1.0	11
Bromochloromethane	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<0.50	<0.50	<0.50	1.5
Carbon Tetrachloride	<0.50	<0.50	<0.50	<0.50
1,1-Dichloropropene	<1.0	<1.0	<1.0	<1.0
Benzene	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	<0.50	<0.50	<0.50	<0.50
Trichloroethene	<0.50	<0.50	0.56	<0.50
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0
Dibromomethane	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	<0.50	<0.50	272	<0.50
1,3-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	<1.0	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0

cc: Envirocon, Livingston.

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	89-2	89-8	89-3	TRIP BLANK
LAB NO.	90-3694	90-3695	90-3696	90-3697
SAMPLE IDENTIFICATION	140101-272	140101-273	140101-274	140101-275
REPORT DATE	03/20/90	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/26/90	02/26/90	02/26/90	02/26/90
SAMPLE DATE	02/23/90	02/23/90	02/23/90	02/23/90
SAMPLE TIME	1130	1430	1715	1515
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Ethylbenzene	<1.0	<1.0	<1.0	<1.0
p-Xylene	<1.0	<1.0	<1.0	<1.0
m-Xylene	<1.0	<1.0	<1.0	<1.0
o-Xylene	<1.0	<1.0	<1.0	<1.0
Styrene	<1.0	<1.0	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0
Bromobenzene	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0
n-Propylbenzene	<1.0	<1.0	<1.0	<1.0
2-Chlorotoluene	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50
n-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0
Naphthalene	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0

REMARKS: Sample was properly preserved and in specified container.
Sample was analyzed in accordance with EPA method 524.2.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

EPA WATER SUPPLY QUALITY
CONTROL SAMPLE

Volatile Organic Contaminants

PROJECT: Livingston / BN

PARAMETER	True Value, ug/l	P (%)	Range for P (%)
Bromochloromethane	5.0	96	60-140
Chloroform	5.0	86	60-140
Carbon Tetrachloride	5.1	90	60-140
Trichloroethene	5.0	100	60-140
1,2-Dibromoethane	5.0	118	60-140
1,1,1,2-Tetrachloroethane	4.9	73	60-140
Tetrachloroethene	5.0	74	60-140
1,2-Dibromo-3-chloropropane	5.0	93	60-140
1,3-Dichlorobenzene	5.0	96	60-140

P = Percent recovery measured.

This EPA Quality Control sample was analyzed with your lab no.s 90-3694 thru 90-3697 with the above results.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	89-2	89-8	89-3
LAB NO.	90-3694	90-3695	90-3696
SAMPLE IDENTIFICATION	140101-272	140101-273	140101-274
REPORT DATE	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/26/90	02/26/90	02/26/90
SAMPLE DATE	02/23/90	02/23/90	02/23/90
SAMPLE TIME	1130	1430	1715
	mg/l	mg/l	mg/l
Total Petroleum Hydrocarbons	<0.1	0.4	<0.1

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

Pesticides and PCB's

	89-2	89-8	89-3
LAB NO.	90-3694	90-3695	90-3696
SAMPLE IDENTIFICATION	140101-272	140101-273	140101-274
REPORT DATE	03/20/90	03/20/90	03/20/90
SAMPLE SUBMITTED	02/26/90	02/26/90	02/26/90
SAMPLE DATE	02/23/90	02/23/90	02/23/90
SAMPLE TIME	1130	1430	1715
EPA METHOD 608	ug/l	ug/l	ug/l
Aldrin	<0.05	<0.05	<0.05
alpha BHC	<0.05	<0.05	<0.05
beta BHC	<0.05	<0.05	<0.05
delta BHC	<0.05	<0.05	<0.05
gamma BHC	<0.05	<0.05	<0.05
Chlordane	<0.10	<0.10	<0.10
4,4'-DDD	<0.10	<0.10	<0.10
4,4'-DDE	<0.05	<0.05	<0.05
4,4'-DDT	<0.10	<0.10	<0.10
Dieldrin	<0.05	<0.05	<0.05
Endosulfan I	<0.10	<0.10	<0.10
Endosulfan II	<0.05	<0.05	<0.05
Endosulfan sulfate	<0.10	<0.10	<0.10
Endrin	<0.05	<0.05	<0.05
Endrin aldehyde	<0.10	<0.10	<0.10
Heptachlor	<0.05	<0.05	<0.05
Heptachlor epoxide	<0.10	<0.10	<0.10
Toxaphene	<1.0	<1.0	<1.0
PCB-1016	<1.0	<1.0	<1.0
PCB-1221	<1.0	<1.0	<1.0
PCB-1232	<1.0	<1.0	<1.0
PCB-1242	<1.0	<1.0	<1.0
PCB-1248	<1.0	<1.0	<1.0
PCB-1254	<1.0	<1.0	<1.0
PCB-1260	<1.0	<1.0	<1.0

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

EPA QUALITY CONTROL SAMPLES

Chlorinated Hydrocarbon Pecticides

PROJECT: Livingston / BN

PARAMETER	True Value, ug/l	P (%)	Range for P,Ps (%)
Heptachlor	2.0	100	42-122
Aldrin	2.0	83	34-111
DDE	2.0	112	30-145
Dieldrin	2.0	112	36-146
DDD	10.0	65	31-141
DDT	10.0	65	25-160
Beta-BHC	2.0	103	17-147
Heptachlor Epoxide	2.0	73	37-142
Endosulfan I	2.0	75	45-153
Endosulfan II	10.0	109	D-122
Endrin Aldehyde	10.0	82	1.19-15.4

P = Percent Recovery Measured

This EPA reference sample was analyzed with your lab no.s 90-3694 thru 90-3697.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

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PROJECT: Livingston / BN

Water Analysis

	L-87-8	L-87-7	89-1
LAB NO.	90-5083	90-5084	90-5085
SAMPLE IDENTIFICATION	140101-277	140101-278	140101-279
DATE REPORTED	04/04/90	04/04/90	04/04/90
SAMPLE SUBMITTED	03/05/90	03/05/90	03/05/90
SAMPLE DATE	03/01/90	03/01/90	03/01/90
SAMPLE TIME	1015		1330
EPA METHOD 625			
ACID EXTRACTABLES	ug/l	ug/l	ug/l
4-Chloro-3-methylphenol	<10	<10	<10
2-Chlorophenol	<10	<10	<10
2,4-Dichlorophenol	<10	<10	<10
2,4-Dimethylphenol	<10	<10	<10
2,4-Dinitrophenol	<50	<50	<50
2-Methyl-4,6-dinitrophenol	<50	<50	<50
2-Nitrophenol	<10	<10	<10
4-Nitrophenol	<50	<50	<50
Pentachlorophenol	<50	<50	<50
Phenol	<10	<10	<10
2,4,6-Trichlorophenol	<10	<10	<10
BASE NEUTRAL EXTRACTABLES	ug/l	ug/l	ug/l
Acenaphthene	<10	<10	<10
Acenaphthylene	<10	<10	<10
Anthracene	<10	<10	<10
Azobenzene	<10	<10	<10
Benzidine	<10	<10	<10
Benzo(a)anthracene	<10	<10	<10
Benzo(a)pyrene	<10	<10	<10
Benzo(b)fluoranthene	<10	<10	<10
Benzo(k)fluoranthene	<10	<10	<10
Benzo(ghi)perylene	<10	<10	<10
Bis(2-chloroethoxy)methane	<10	<10	<10
Bis(2-chloroethyl)ether	<10	<10	<10
Bis(2-chloroisopropyl)ether	<10	<10	<10
Bis(2-ethylhexyl)phthalate	<10	<10	<10
4-Bromophenylphenyl ether	<10	<10	<10
Butyl benzyl phthalate	<10	<10	<10

cc: Envirocon, Livingston.

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	L-87-8	L-87-7	89-1
LAB NO.	90-5083	90-5084	90-5085
SAMPLE IDENTIFICATION	140101-277	140101-278	140101-279
DATE REPORTED	04/04/90	04/04/90	04/04/90
SAMPLE SUBMITTED	03/05/90	03/05/90	03/05/90
SAMPLE DATE	03/01/90	03/01/90	03/01/90
SAMPLE TIME	1015		1330
EPA METHOD 625			
BASE NEUTRAL EXTRACTABLES	ug/l	ug/l	ug/l
2-Chloronaphthalene	<10	<10	<10
4-Chlorophenylphenyl ether	<10	<10	<10
Chrysene	<10	<10	<10
Dibenzo(a,h)anthracene	<10	<10	<10
1,2-Dichlorobenzene	<10	<10	<10
1,3-Dichlorobenzene	<10	<10	<10
1,4-Dichlorobenzene	<10	<10	<10
3,3-Dichlorobenzidine	<10	<10	<10
Diethyl phthalate	<10	<10	<10
Dimethyl phthalate	<10	<10	<10
Di-n-butyl phthalate	<10	<10	<10
2,4-Dinitrotoluene	<10	<10	<10
2,6-Dinitrotoluene	<10	<10	<10
Di-n-octyl phthalate	<10	<10	<10
Fluoranthene	<10	<10	<10
Fluorene	<10	<10	<10
Hexachlorobenzene	<10	<10	<10
Hexachlorobutadiene	<10	<10	<10
Hexachloroethane	<10	<10	<10
Indeno(1,2,3-cd)pyrene	<10	<10	<10
Isophorone	<10	<10	<10
Naphthalene	<10	<10	<10
Nitrobenzene	<10	<10	<10
N-Nitrosophenylamine	<10	<10	<10
N-Nitrosodi-n-propylamine	<10	<10	<10
Phenanthrene	<10	<10	<10
Pyrene	<10	<10	<10
1,2,4-Trichlorobenzene	<10	<10	<10

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

PROJECT: Livingston / BN

Water Analysis

PAGE 1

	89-7	DUPLICATE OF 89-7	89-4
LAB NO.	90-5086	90-5087	90-5088
SAMPLE IDENTIFICATION	140101-281	140101-282	140101-285
DATE REPORTED	04/04/90	04/04/90	04/04/90
SAMPLE SUBMITTED	03/05/90	03/05/90	03/05/90
SAMPLE DATE	03/01/90	03/01/90	03/02/90
SAMPLE TIME			1040
EPA METHOD 625			
ACID EXTRACTABLES	ug/l	ug/l	ug/l
4-Chloro-3-methylphenol	<10	<10	<10
2-Chlorophenol	<10	<10	<10
2,4-Dichlorophenol	<10	<10	<10
2,4-Dimethylphenol	<10	<10	<10
2,4-Dinitrophenol	<50	<50	<50
2-Methyl-4,6-dinitrophenol	<50	<50	<50
2-Nitrophenol	<10	<10	<10
4-Nitrophenol	<50	<50	<50
Pentachlorophenol	<50	<50	<50
Phenol	<10	<10	<10
2,4,6-Trichlorophenol	<10	<10	<10
BASE NEUTRAL EXTRACTABLES	ug/l	ug/l	ug/l
Acenaphthene	<10	<10	<10
Acenaphthylene	<10	<10	<10
Anthracene	<10	<10	<10
Azobenzene	<10	<10	<10
Benzidine	<10	<10	<10
Benzo(a)anthracene	<10	<10	<10
Benzo(a)pyrene	<10	<10	<10
Benzo(b)fluoranthene	<10	<10	<10
Benzo(k)fluoranthene	<10	<10	<10
Benzo(ghi)perylene	<10	<10	<10
Bis(2-chloroethoxy)methane	<10	<10	<10
Bis(2-chloroethyl)ether	<10	<10	<10
Bis(2-chloroisopropyl)ether	<10	<10	<10
Bis(2-ethylhexyl)phthalate	<10	<10	<10
4-Bromophenylphenyl ether	<10	<10	<10
Butyl benzyl phthalate	<10	<10	<10

cc: Envirocon, Livingston.

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	89-7	DUPLICATE OF 89-7	89-4
LAB NO.	90-5086	90-5087	90-5088
SAMPLE IDENTIFICATION	140101-281	140101-282	140101-285
DATE REPORTED	04/04/90	04/04/90	04/04/90
SAMPLE SUBMITTED	03/05/90	03/05/90	03/05/90
SAMPLE DATE	03/01/90	03/01/90	03/02/90
SAMPLE TIME			1040
EPA METHOD 625			
BASE NEUTRAL EXTRACTABLES	ug/l	ug/l	ug/l
2-Chloronaphthalene	<10	<10	<10
4-Chlorophenylphenyl ether	<10	<10	<10
Chrysene	<10	<10	<10
Dibenzo(a,h)anthracene	<10	<10	<10
1,2-Dichlorobenzene	<10	<10	<10
1,3-Dichlorobenzene	<10	<10	<10
1,4-Dichlorobenzene	<10	<10	<10
3,3-Dichlorobenzidine	<10	<10	<10
Diethyl phthalate	<10	<10	<10
Dimethyl phthalate	<10	<10	<10
Di-n-butyl phthalate	<10	<10	<10
2,4-Dinitrotoluene	<10	<10	<10
2,6-Dinitrotoluene	<10	<10	<10
Di-n-octyl phthalate	<10	<10	<10
Fluoranthene	<10	<10	<10
Fluorene	<10	<10	<10
Hexachlorobenzene	<10	<10	<10
Hexachlorobutadiene	<10	<10	<10
Hexachloroethane	<10	<10	<10
Indeno(1,2,3-cd)pyrene	<10	<10	<10
Isophorone	<10	<10	<10
Naphthalene	<10	<10	<10
Nitrobenzene	<10	<10	<10
N-Nitrosophenylamine	<10	<10	<10
N-Nitrosodi-n-propylamine	<10	<10	<10
Phenanthrene	<10	<10	<10
Pyrene	<10	<10	<10
1,2,4-Trichlorobenzene	<10	<10	<10

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

PROJECT: Livingston / BN

Water Analysis

89-6

LAB NO.	90-5089
SAMPLE IDENTIFICATION	140101-287
DATE REPORTED	04/04/90
SAMPLE SUBMITTED	03/05/90
SAMPLE DATE	03/02/90
SAMPLE TIME	

EPA METHOD 625

ACID EXTRACTABLES	ug/l
4-Chloro-3-methylphenol	<10
2-Chlorophenol	<10
2,4-Dichlorophenol	<10
2,4-Dimethylphenol	<10
2,4-Dinitrophenol	<50
2-Methyl-4,6-dinitrophenol	<50
2-Nitrophenol	<10
4-Nitrophenol	<50
Pentachlorophenol	<50
Phenol	<10
2,4,6-Trichlorophenol	<10

BASE NEUTRAL EXTRACTABLES	ug/l
Acenaphthene	<10
Acenaphthylene	<10
Anthracene	<10
Azobenzene	<10
Benzidine	<10
Benzo(a)anthracene	<10
Benzo(a)pyrene	<10
Benzo(b)fluoranthene	<10
Benzo(k)fluoranthene	<10
Benzo(ghi)perylene	<10
Bis(2-chloroethoxy)methane	<10
Bis(2-chloroethyl)ether	<10
Bis(2-chloroisopropyl)ether	<10
Bis(2-ethylhexyl)phthalate	<10
4-Bromophenylphenyl ether	<10
Butyl benzyl phthalate	<10

cc: Envirocon, Livingston.

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89-6

LAB NO.	90-5089
SAMPLE IDENTIFICATION	140101-287
DATE REPORTED	04/04/90
SAMPLE SUBMITTED	03/05/90
SAMPLE DATE	03/02/90
SAMPLE TIME	

EPA METHOD 625

BASE NEUTRAL EXTRACTABLES	ug/l
2-Chloronaphthalene	<10
4-Chlorophenylphenyl ether	<10
Chrysene	<10
Dibenzo(a,h)anthracene	<10
1,2-Dichlorobenzene	<10
1,3-Dichlorobenzene	<10
1,4-Dichlorobenzene	<10
3,3-Dichlorobenzidine	<10
Diethyl phthalate	<10
Dimethyl phthalate	<10
Di-n-butyl phthalate	<10
2,4-Dinitrotoluene	<10
2,6-Dinitrotoluene	<10
Di-n-octyl phthalate	<10
Fluoranthene	<10
Fluorene	<10
Hexachlorobenzene	<10
Hexachlorobutadiene	<10
Hexachloroethane	<10
Indeno(1,2,3-cd)pyrene	<10
Isophorone	<10
Naphthalene	<10
Nitrobenzene	<10
N-Nitrosophenylamine	<10
N-Nitrosodi-n-propylamine	<10
Phenanthrene	<10
Pyrene	<10
1,2,4-Trichlorobenzene	<10

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER POLLUTION QUALITY CONTROL SAMPLES

GC/MS BASE NEUTRALS

PROJECT: Livingston / BN

PARAMETER	True Value, ug/l	P (%)	Range for P, Ps (%)
1,4-Dichlorobenzene	50	94	20-124
Hexachloroethane	50	90	40-113
Nitrobenzene	50	86	35-180
Naphthalene	50	100	21-133
Dimethyl Phthalate	50	92	D-112
Acenaphthene	50	88	47-145
Fluorene	50	100	59-121
4-Chlorophenyl phenyl ether	50	87	25-158
4-Bromophenyl phenyl ether	50	96	53-127
Anthracene	50	94	27-133
Fluoranthene	50	92	26-137
Butyl benzyl phthalate	50	86	D-152
Chrysene	50	84	17-168
Bis (2-Ethyl Hexyl) Phthalate	50	90	8-158
Benzo (b) Fluoranthene	50	106	24-159
Benzo (a) pyrene	50	84	17-163
Dibenzo (a,h) anthracene	50	84	D-227
Benzo (g,h,i) perylene	50	88	D-219

P = Percent recovery measured.

This EPA Reference sample was analyzed with your
Lab no.s 90-5083 thru 90-5089.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

PROJECT: Livingston / BN

Water Analysis

PAGE 1

	L-87-8	L-87-7	89-1	89-7
LAB NO.	90-5083	90-5084	90-5085	90-5086
SAMPLE IDENTIFICATION	140101-277	140101-278	140101-279	140101-281
DATE REPORTED	04/04/90	04/04/90	04/04/90	04/04/90
SAMPLE SUBMITTED	03/05/90	03/05/90	03/05/90	03/05/90
SAMPLE DATE	03/01/90	03/01/90	03/01/90	03/01/90
SAMPLE TIME	1015		1330	
Pesticides and PCBs (EPA Method 608)	ug/l	ug/l	ug/l	ug/l
Aldrin	<0.05	<0.05	<0.05	<0.05
alpha BHC	<0.05	<0.05	<0.05	<0.05
beta BHC	<0.05	<0.05	<0.05	<0.05
delta BHC	<0.05	<0.05	<0.05	<0.05
gamma BHC	<0.05	<0.05	<0.05	<0.05
Chlordane	<0.10	<0.10	<0.10	<0.10
4,4'-DDD	<0.10	<0.10	<0.10	<0.10
4,4'-DDE	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	<0.10	<0.10	<0.10	<0.10
Dieldrin	<0.05	<0.05	<0.05	<0.05
Endosulfan I	<0.10	<0.10	<0.10	<0.10
Endosulfan II	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	<0.10	<0.10	<0.10	<0.10
Endrin	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	<0.10	<0.10	<0.10	<0.10
Heptachlor	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	<0.10	<0.10	<0.10	<0.10
Toxaphene	<1.0	<1.0	<1.0	<1.0
PCB-1016	<1.0	<1.0	<1.0	<1.0
PCB-1221	<1.0	<1.0	<1.0	<1.0
PCB-1232	<1.0	<1.0	<1.0	<1.0
PCB-1242	<1.0	<1.0	<1.0	<1.0
PCB-1248	<1.0	<1.0	<1.0	<1.0
PCB-1254	<1.0	<1.0	<1.0	<1.0
PCB-1260	<1.0	<1.0	<1.0	<1.0

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

PROJECT: Livingston / BN

Water Analysis

	DUPLICATE OF 89-7	89-4	89-6
LAB NO.	90-5087	90-5088	90-5089
SAMPLE IDENTIFICATION	140101-282	140101-285	140101-287
DATE REPORTED	04/04/90	04/04/90	04/04/90
SAMPLE SUBMITTED	03/05/90	03/05/90	03/05/90
SAMPLE DATE	03/01/90	03/02/90	03/02/90
SAMPLE TIME		1040	
Pesticides and PCBs (EPA Method 608)	ug/l	ug/l	ug/l
Aldrin	<0.05	<0.05	<0.05
alpha BHC	<0.05	<0.05	<0.05
beta BHC	<0.05	<0.05	<0.05
delta BHC	<0.05	<0.05	<0.05
gamma BHC	<0.05	<0.05	<0.05
Chlordane	<0.10	<0.10	<0.10
4,4'-DDD	<0.10	<0.10	<0.10
4,4'-DDE	<0.05	<0.05	<0.05
4,4'-DDT	<0.10	<0.10	<0.10
Dieldrin	<0.05	<0.05	<0.05
Endosulfan I	<0.10	<0.10	<0.10
Endosulfan II	<0.05	<0.05	<0.05
Endosulfan sulfate	<0.10	<0.10	<0.10
Endrin	<0.05	<0.05	<0.05
Endrin aldehyde	<0.10	<0.10	<0.10
Heptachlor	<0.05	<0.05	<0.05
Heptachlor epoxide	<0.10	<0.10	<0.10
Toxaphene	<1.0	<1.0	<1.0
PCB-1016	<1.0	<1.0	<1.0
PCB-1221	<1.0	<1.0	<1.0
PCB-1232	<1.0	<1.0	<1.0
PCB-1242	<1.0	<1.0	<1.0
PCB-1248	<1.0	<1.0	<1.0
PCB-1254	<1.0	<1.0	<1.0
PCB-1260	<1.0	<1.0	<1.0

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

PROJECT: Livingston / BN

EPA WATER POLLUTION
QUALITY CONTROL SAMPLES

PARAMETER	True Value, ug/l	P (%)	Range for P,Ps (%)
Heptachlor	2.0	77.5	42 - 122
Aldrin	2.0	85.0	34 - 111
DDE	2.0	108	30 - 145
Dieldrin	2.0	108	36 - 146
DDD	10.0	68.5	31 - 141
DDT	10.0	61.8	25 - 160
Beta-BHC	2.0	68.0	17 - 147
Heptachlor Epoxide	2.0	74.8	37 - 142
Endosulfan I	2.0	73.0	45 - 153
Endosulfan II	10.0	53.0	D - 202
Endrin Aldehyde	5.0	49.7	1.19 - 15.4

P, Ps = Percent recovery measured.

This EPA Reference sample was analyzed with your
Lab no.s 90-5083 thru 90-5089 with the above results.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

PROJECT: Livingston / BN

Water Analysis

	L-87-8	89-1	89-7
LAB NO.	90-5083	90-5085	90-5086
SAMPLE IDENTIFICATION	140101-277	140101-279	140101-281
DATE REPORTED	04/04/90	04/04/90	04/04/90
SAMPLE SUBMITTED	03/05/90	03/05/90	03/05/90
SAMPLE DATE	03/01/90	03/01/90	03/01/90
SAMPLE TIME	1015	1330	
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l
Dichlorodifluoromethane	<1.0	<1.0	<1.0
Chloromethane	<1.0	<1.0	<1.0
Vinyl chloride	<0.50	<0.50	<0.50
Bromomethane	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0	<1.0
1,1-Dichloroethene	<0.50	<0.50	<0.50
Methylene Chloride	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0
1,1-Dichloroethane	<1.0	<1.0	<1.0
2,2-Dichloropropane	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	12	<1.0	1.0
Chloroform	<1.0	<1.0	<1.0
Bromochloromethane	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<0.50	<0.50	<0.50
Carbon Tetrachloride	<0.50	<0.50	<0.50
1,1-Dichloropropene	<1.0	<1.0	<1.0
Benzene	<0.50	<0.50	<0.50
1,2-Dichloroethane	<0.50	<0.50	<0.50
Trichloroethene	18	<0.50	2.5
1,2-Dichloropropane	<1.0	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0
Dibromomethane	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0	<1.0
Tetrachloroethene	69	10	32
1,3-Dichloropropane	<1.0	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0	<1.0
Chlorobenzene	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0

cc: Envirocon, Livingston.

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	L-87-8	89-1	89-7
LAB NO.	90-5083	90-5085	90-5086
SAMPLE IDENTIFICATION	140101-277	140101-279	140101-281
DATE REPORTED	04/04/90	04/04/90	04/04/90
SAMPLE SUBMITTED	03/05/90	03/05/90	03/05/90
SAMPLE DATE	03/01/90	03/01/90	03/01/90
SAMPLE TIME	1015	1330	
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l
Ethylbenzene	<1.0	<1.0	<1.0
p-Xylene	<1.0	<1.0	<1.0
m-Xylene	<1.0	<1.0	<1.0
o-Xylene	<1.0	<1.0	<1.0
Styrene	<1.0	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0
Isopropylbenzene	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0
Bromobenzene	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0
n-Propylbenzene	<1.0	<1.0	<1.0
2-Chlorotoluene	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0	<1.0
p-Isopropyltoluene	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	<0.50	<0.50	<0.50
n-Butylbenzene	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0	<1.0
Naphthalene	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0

REMARKS: Sample was properly preserved and in specified container. Sample was analyzed in accordance with EPA method 524.2.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

PROJECT: Livingston / BN

Water Analysis

PAGE 1

	DUPLICATE OF 89-7	89-4	89-6	TRIP BLANK
LAB NO.	90-5087	90-5088	90-5089	90-5090
SAMPLE IDENTIFICATION	140101-282	140101-285	140101-287	140101-283
DATE REPORTED	04/04/90	04/04/90	04/04/90	04/04/90
SAMPLE SUBMITTED	03/05/90	03/05/90	03/05/90	03/05/90
SAMPLE DATE	03/01/90	03/02/90	03/02/90	03/01/90
SAMPLE TIME		1040		
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0
Chloromethane	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	<0.50	<0.50	<0.50	<0.50
Bromomethane	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	1.0	5.6	1.0	<1.0
Chloroform	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	<0.50	<0.50	<0.50	<0.50
1,1-Dichloropropene	<1.0	<1.0	<1.0	<1.0
Benzene	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	<0.50	<0.50	<0.50	<0.50
Trichloroethene	2.3	3.9	0.86	<0.50
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0
Dibromomethane	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	30	530	28	<0.50
1,3-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	<1.0	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0

cc: Envirocon, Livingston.

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	DUPLICATE OF 89-7	89-4	89-6	TRIP BLANK
LAB NO.	90-5087	90-5088	90-5089	90-5090
SAMPLE IDENTIFICATION	140101-282	140101-285	140101-287	140101-283
DATE REPORTED	04/04/90	04/04/90	04/04/90	04/04/90
SAMPLE SUBMITTED	03/05/90	03/05/90	03/05/90	03/05/90
SAMPLE DATE	03/01/90	03/02/90	03/02/90	03/01/90
SAMPLE TIME		1040		
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Ethylbenzene	<1.0	<1.0	<1.0	<1.0
p-Xylene	<1.0	<1.0	<1.0	<1.0
m-Xylene	<1.0	<1.0	<1.0	<1.0
o-Xylene	<1.0	<1.0	<1.0	<1.0
Styrene	<1.0	<1.0	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0
Bromobenzene	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0
n-Propylbenzene	<1.0	<1.0	<1.0	<1.0
2-Chlorotoluene	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50
n-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0
Naphthalene	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0

REMARKS: Sample was properly preserved and in specified container. Sample was analyzed in accordance with EPA method 524.2.

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

PROJECT: Livingston / BN

Water Analysis

PAGE 1

	EQUIPMENT BLANK	TRIP BLANK	TRIP BLANK
LAB NO.	90-5091	90-5092	90-5094
SAMPLE IDENTIFICATION	140101-280	140101-284	140101-290
DATE REPORTED	04/04/90	04/04/90	04/04/90
SAMPLE SUBMITTED	03/05/90	03/05/90	03/05/90
SAMPLE DATE	03/01/90	03/01/90	03/02/90
SAMPLE TIME	1405		
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l
Dichlorodifluoromethane	<1.0	<1.0	<1.0
Chloromethane	<1.0	<1.0	<1.0
Vinyl chloride	<0.50	<0.50	<0.50
Bromomethane	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0	<1.0
1,1-Dichloroethene	<0.50	<0.50	<0.50
Methylene Chloride	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0
1,1-Dichloroethane	<1.0	<1.0	<1.0
2,2-Dichloropropane	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<1.0	<1.0	<1.0
Chloroform	9.7	<1.0	<1.0
Bromochloromethane	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<0.50	<0.50	<0.50
Carbon Tetrachloride	<0.50	<0.50	<0.50
1,1-Dichloropropene	<1.0	<1.0	<1.0
Benzene	<0.50	<0.50	<0.50
1,2-Dichloroethane	<0.50	<0.50	<0.50
Trichloroethene	<0.50	<0.50	<0.50
1,2-Dichloropropane	<1.0	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0
Dibromomethane	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0	<1.0
Tetrachloroethene	<0.50	0.71	<0.50
1,3-Dichloropropane	<1.0	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0	<1.0
Chlorobenzene	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0

cc: Envirocon, Livingston.

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	EQUIPMENT BLANK	TRIP BLANK	TRIP BLANK
LAB NO.	90-5091	90-5092	90-5094
SAMPLE IDENTIFICATION	140101-280	140101-284	140101-290
DATE REPORTED	04/04/90	04/04/90	04/04/90
SAMPLE SUBMITTED	03/05/90	03/05/90	03/05/90
SAMPLE DATE	03/01/90	03/01/90	03/02/90
SAMPLE TIME	1405		
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l
Ethylbenzene	<1.0	<1.0	<1.0
p-Xylene	<1.0	<1.0	<1.0
m-Xylene	<1.0	<1.0	<1.0
o-Xylene	<1.0	<1.0	<1.0
Styrene	<1.0	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0
Isopropylbenzene	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0
Bromobenzene	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0
n-Propylbenzene	<1.0	<1.0	<1.0
2-Chlorotoluene	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0	<1.0
p-Isopropyltoluene	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	<0.50	<0.50	<0.50
n-Butylbenzene	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0	<1.0
Naphthalene	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0

REMARKS: Sample was properly preserved and in specified container. Sample was analyzed in accordance with EPA method 524.2.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

PROJECT: Livingston / BN

Water Analysis

TRIP BLANK

PAGE 1

	Duplicate
LAB NO.	90-5090
SAMPLE IDENTIFICATION	140101-283
DATE REPORTED	04/04/90
SAMPLE SUBMITTED	03/05/90
SAMPLE DATE	03/01/90
SAMPLE TIME	
VOLATILE ORGANIC CONSTITUENT	ug/l
Dichlorodifluoromethane	<1.0
Chloromethane	<1.0
Vinyl chloride	<0.50
Bromomethane	<1.0
Chloroethane	<1.0
Trichlorofluoromethane	<1.0
1,1-Dichloroethene	<0.50
Methylene Chloride	<1.0
trans-1,2-Dichloroethene	<1.0
1,1-Dichloroethane	<1.0
2,2-Dichloropropane	<1.0
cis-1,2-Dichloroethene	<1.0
Chloroform	<1.0
Bromochloromethane	<1.0
1,1,1-Trichloroethane	<0.50
Carbon Tetrachloride	<0.50
1,1-Dichloropropene	<1.0
Benzene	<0.50
1,2-Dichloroethane	<0.50
Trichloroethene	<0.50
1,2-Dichloropropane	<1.0
Bromodichloromethane	<1.0
Dibromomethane	<1.0
Toluene	<1.0
1,1,2-Trichloroethane	<1.0
Tetrachloroethene	<0.50
1,3-Dichloropropane	<1.0
Dibromochloromethane	<1.0
1,2-Dibromoethane	<1.0
Chlorobenzene	<1.0
1,1,1,2-Tetrachloroethane	<1.0

cc: Envirocon, Livingston.

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TRIP BLANK

	Duplicate
LAB NO.	90-5090
SAMPLE IDENTIFICATION	140101-283
DATE REPORTED	04/04/90
SAMPLE SUBMITTED	03/05/90
SAMPLE DATE	03/01/90
SAMPLE TIME	

VOLATILE ORGANIC CONSTITUENT	ug/l
Ethylbenzene	<1.0
p-Xylene	<1.0
m-Xylene	<1.0
o-Xylene	<1.0
Styrene	<1.0
Bromoform	<1.0
Isopropylbenzene	<1.0
1,1,2,2-Tetrachloroethane	<1.0
Bromobenzene	<1.0
1,2,3-Trichloropropane	<1.0
n-Propylbenzene	<1.0
2-Chlorotoluene	<1.0
1,3,5-Trimethylbenzene	<1.0
4-Chlorotoluene	<1.0
tert-Butylbenzene	<1.0
1,2,4-Trimethylbenzene	<1.0
sec-Butylbenzene	<1.0
p-Isopropyltoluene	<1.0
1,3-Dichlorobenzene	<1.0
1,4-Dichlorobenzene	<0.50
n-Butylbenzene	<1.0
1,2-Dichlorobenzene	<1.0
1,2-Dibromo-3-Chloropropane	<1.0
1,2,4-Trichlorobenzene	<1.0
Hexachlorobutadiene	<1.0
Naphthalene	<1.0
1,2,3-Trichlorobenzene	<1.0
cis-1,3-Dichloropropene	<1.0
trans-1,3-Dichloropropene	<1.0

REMARKS: Sample was properly preserved and in specified container. Sample was analyzed in accordance with EPA method 524.2.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

PROJECT: Livingston / BN

Water Analysis

PAGE 1

	L-87-7	EQUIPMENT BLANK
LAB NO.	90-5084	90-5093
SAMPLE IDENTIFICATION	140101-278	140101-286
DATE REPORTED	04/04/90	04/04/90
SAMPLE SUBMITTED	03/05/90	03/05/90
SAMPLE DATE	03/01/90	03/02/90
SAMPLE TIME		1110
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l
Dichlorodifluoromethane	<1.0	<1.0
Chloromethane	<1.0	<1.0
Vinyl chloride	<0.50	<0.50
Bromomethane	<1.0	<1.0
Chloroethane	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0
1,1-Dichloroethene	<0.50	<0.50
Methylene Chloride	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0
1,1-Dichloroethane	<1.0	<1.0
2,2-Dichloropropane	<1.0	<1.0
cis-1,2-Dichloroethene	<1.0	<1.0
Chloroform	<1.0	12
Bromochloromethane	<1.0	<1.0
1,1,1-Trichloroethane	<0.50	<0.50
Carbon Tetrachloride	<0.50	<0.50
1,1-Dichloropropene	<1.0	<1.0
Benzene	0.73	<0.50
1,2-Dichloroethane	<0.50	<0.50
Trichloroethene	<0.50	<0.50
1,2-Dichloropropane	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0
Dibromomethane	<1.0	<1.0
Toluene	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0
Tetrachloroethene	<0.50	17
1,3-Dichloropropane	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0
Chlorobenzene	<1.0	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0

cc: Envirocon, Livingston.

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	L-87-7	EQUIPMENT BLANK
LAB NO.	90-5084	90-5093
SAMPLE IDENTIFICATION	140101-278	140101-286
DATE REPORTED	04/04/90	04/04/90
SAMPLE SUBMITTED	03/05/90	03/05/90
SAMPLE DATE	03/01/90	03/02/90
SAMPLE TIME		1110
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l
Ethylbenzene	<1.0	<1.0
m+p-Xylene	2.0	1.4
o-Xylene	<1.0	<1.0
Styrene	<1.0	<1.0
Bromoform	<1.0	<1.0
Isopropylbenzene	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0
Bromobenzene	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0
n-Propylbenzene	<1.0	<1.0
2-Chlorotoluene	<1.0	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0
1,2,4-Trimethylbenzene	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0
p-Isopropyltoluene	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0
1,4-Dichlorobenzene	<0.50	<0.50
n-Butylbenzene	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0
Naphthalene	25	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0

REMARKS: Sample was properly preserved and in specified container. Sample was analyzed in accordance with EPA Method 524.2.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

PROJECT: Livingston / BN

Quality Assurance Spiked Analysis

CONSTITUENT	SPIKE AMOUNT ug/l	P (%)	RANGE FOR P (%)
Bromochloromethane	5.0	104	60-140
Chloroform	5.0	98	60-140
Carbon Tetrachloride	5.1	84	60-140
Trichloroethene	5.0	95	60-140
Tetrachloroethene	5.0	76	60-140
1,2-Dibromoethane	5.0	106	60-140
1,1,1,2-Tetrachloroethene	4.9	69	60-140
1,3-Dichlorobenzene	5.0	108	60-140
1,2-Dibromo-3-Chloropropane	5.0	85	60-140

P = percent recovery measured.

NOTE: Lab no. 90-5091 was spiked with the above constituents with these results.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

EPA WATER SUPPLY QUALITY
CONTROL SAMPLE

Volatile Organic Contaminants

PROJECT: Livingston / BN

CONSTITUENT	True Value ug/l	P (%)	RANGE FOR P (%)
Bromochloromethane	5.0	61	60-140
Chloroform	5.0	86	60-140
Carbon Tetrachloride	5.1	90	60-140
Trichloroethene	5.0	98	60-140
Tetrachloroethene	5.0	83	60-140
1,2-Dibromoethane	5.0	116	60-140
1,1,1,2-Tetrachloroethane	4.9	91	60-140
1,3-Dichlorobenzene	5.0	91	60-140
1,2-Dibromo-3-Chloropropane	5.0	91	60-140

P = percent recovery measured.

REMARKS: This EPA Quality Control sample was analyzed
with your Lab No. 90-5083 thru 90-5094 with the above results.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

PROJECT: Livingston / BN

Water Analysis

	L-87-8	L-87-7	89-1
LAB NO.	90-5083	90-5084	90-5085
SAMPLE IDENTIFICATION	140101-277	140101-278	140101-279
REPORT DATE	04/04/90	04/04/90	04/04/90
SAMPLE SUBMITTED	03/05/90	03/05/90	03/05/90
SAMPLE DATE	03/01/90	03/01/90	03/01/90
SAMPLE TIME	1015		1330
CONSTITUENT	mg/l	mg/l	mg/l
Arsenic	<0.005	<0.005	<0.005
Barium	<0.1	<0.1	<0.1
Cadmium	0.001	<0.001	<0.001
Chromium	<0.02	<0.02	<0.02
Lead	<0.01	<0.01	0.01
Mercury	<0.001	<0.001	<0.001
Selenium	<0.005	<0.005	<0.005
Silver	<0.005	<0.005	<0.005
Total Petroleum Hydrocarbons	22.8	19.0	4.5

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

PROJECT: Livingston / BN

Water Analysis

	89-7	DUPLICATE OF 89-7	89-4
LAB NO.	90-5086	90-5087	90-5088
SAMPLE IDENTIFICATION	140101-281	140101-282	140101-285
REPORT DATE	04/04/90	04/04/90	04/04/90
SAMPLE SUBMITTED	03/05/90	03/05/90	03/05/90
SAMPLE DATE	03/01/90	03/01/90	03/02/90
SAMPLE TIME			1040
CONSTITUENT	mg/l	mg/l	mg/l
Arsenic	<0.005	<0.005	<0.005
Barium	<0.1	<0.1	<0.1
Cadmium	<0.001	<0.001	<0.001
Chromium	<0.02	0.03	<0.02
Lead	<0.01	<0.01	<0.01
Mercury	<0.001	<0.001	<0.001
Selenium	<0.005	<0.005	<0.005
Silver	<0.005	<0.005	<0.005
Total Petroleum Hydrocarbons	0.2	<0.1	<0.1

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

PROJECT: Livingston / BN

Water Analysis

89-6

LAB NO.	90-5089
SAMPLE IDENTIFICATION	140101-287
REPORT DATE	04/04/90
SAMPLE SUBMITTED	03/05/90
SAMPLE DATE	03/02/90
SAMPLE TIME	
CONSTITUENT	mg/l
Arsenic	<0.005
Barium	<0.1
Cadmium	<0.001
Chromium	<0.02
Lead	<0.01
Mercury	<0.001
Selenium	<0.005
Silver	<0.005
Total Petroleum Hydrocarbons	<0.1

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

90-2A

LAB NO.	90-6001	90-6002	90-6003	90-6004
SAMPLE IDENTIFICATION	140101-300	140101-301	140101-308	140101-311
DATE REPORTED	04/13/90	04/13/90	04/13/90	04/13/90
SAMPLE SUBMITTED	03/19/90	03/19/90	03/19/90	03/19/90
SAMPLE DATE	03/15/90	03/15/90	03/15/90	03/16/90
SAMPLE TIME	1230	1245	1815	1445
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0
Chloromethane	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	0.83	1.0	<0.50	<0.50
Bromomethane	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	12	14	<1.0	1.0
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	862	791	<1.0	119
Chloroform	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	<0.50	<0.50	<0.50	<0.50
1,1-Dichloropropene	<1.0	<1.0	<1.0	<1.0
Benzene	<0.50	<0.50	0.75	<0.50
1,2-Dichloroethane	<0.50	<0.50	<0.50	<0.50
Trichloroethene	73	70	<0.50	20
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0
Dibromomethane	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	4.1	4.6	<0.50	251
1,3-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	91	102	<1.0	2.3
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0

cc: Envirocon, Livingston.

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90-2A

LAB NO.	90-6001	90-6002	90-6003	90-6004
SAMPLE IDENTIFICATION	140101-300	140101-301	140101-308	140101-311
DATE REPORTED	04/13/90	04/13/90	04/13/90	04/13/90
SAMPLE SUBMITTED	03/19/90	03/19/90	03/19/90	03/19/90
SAMPLE DATE	03/15/90	03/15/90	03/15/90	03/16/90
SAMPLE TIME	1230	1245	1815	1445
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Ethylbenzene	<1.0	<1.0	1.6	<1.0
m-Xylene	<1.0	<1.0	<1.0	<1.0
p-Xylene	<1.0	<1.0	<1.0	<1.0
o-Xylene	2.0	2.0	1.7	<1.0
Styrene	<1.0	<1.0	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	<1.0	<1.0	3.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0
Bromobenzene	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0
n-Propylbenzene	<1.0	<1.0	<1.0	<1.0
2-Chlorotoluene	39	33	<1.0	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	2.8	2.7	<0.50	0.54
n-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	2.3	2.4	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0
Naphthalene	<1.0	<1.0	25	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0

REMARKS: Sample was properly preserved and in specified container. Sample was analyzed in accordance with EPA Method 524.2.

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

90-2B

LAB NO.	90-6005	90-6006	90-6007	90-6008
SAMPLE IDENTIFICATION	140101-312	140101-313	140101-314	140101-310
DATE REPORTED	04/13/90	04/13/90	04/13/90	04/13/90
SAMPLE SUBMITTED	03/19/90	03/19/90	03/19/90	03/19/90
SAMPLE DATE	03/16/90	03/16/90	03/16/90	03/16/90
SAMPLE TIME	1500	1530	1630	1230
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0
Chloromethane	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	<0.50	<0.50	<0.50	<0.50
Bromomethane	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	1.0	<1.0	1.8	<1.0
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	129	<1.0	178	3.0
Chloroform	<1.0	3.2	<1.0	<1.0
Bromochloromethane	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	<0.50	<0.50	<0.50	<0.50
1,1-Dichloropropene	<1.0	<1.0	<1.0	<1.0
Benzene	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	<0.50	<0.50	<0.50	<0.50
Trichloroethene	21	<0.50	22	4.0
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0
Dibromomethane	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	237	2.2	181	263
1,3-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	2.5	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0

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90-2B

LAB NO.	90-6005	90-6006	90-6007	90-6008
SAMPLE IDENTIFICATION	140101-312	140101-313	140101-314	140101-310
DATE REPORTED	04/13/90	04/13/90	04/13/90	04/13/90
SAMPLE SUBMITTED	03/19/90	03/19/90	03/19/90	03/19/90
SAMPLE DATE	03/16/90	03/16/90	03/16/90	03/16/90
SAMPLE TIME	1500	1530	1630	1230
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Ethylbenzene	<1.0	<1.0	<1.0	<1.0
m-Xylene	<1.0	<1.0	<1.0	<1.0
p-Xylene	<1.0	<1.0	<1.0	<1.0
o-Xylene	<1.0	<1.0	<1.0	<1.0
Styrene	<1.0	<1.0	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0
Bromobenzene	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0
n-Propylbenzene	<1.0	<1.0	<1.0	<1.0
2-Chlorotoluene	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	0.50	<0.50	<0.50	<0.50
n-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0
Naphthalene	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0

REMARKS: Sample was properly preserved and in specified container. Sample was analyzed in accordance with EPA Method 524.2.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

Water Analysis

PROJECT: Livingston / BN

90-1B

LAB NO.	90-5387
SAMPLE IDENTIFICATION	140101-292
DATE REPORTED	03/29/90
SAMPLE SUBMITTED	03/08/90
SAMPLE DATE	03/06/90
SAMPLE TIME	1320

EPA METHOD 625

ACID EXTRACTABLES	ug/l
4-Chloro-3-methylphenol	<10
2-Chlorophenol	<10
2,4-Dichlorophenol	<10
2,4-Dimethylphenol	<10
2,4-Dinitrophenol	<50
2-Methyl-4,6-dinitrophenol	<50
2-Nitrophenol	<10
4-Nitrophenol	<50
Pentachlorophenol	<50
Phenol	<10
2,4,6-Trichlorophenol	<10

BASE NEUTRAL EXTRACTABLES	ug/l
Acenaphthene	<10
Acenaphthylene	<10
Anthracene	<10
Azobenzene	<10
Benzidine	<10
Benzo(a)anthracene	<10
Benzo(a)pyrene	<10
Benzo(b)fluoranthene	<10
Benzo(k)fluoranthene	<10
Benzo(ghi)perylene	<10
Bis(2-chloroethoxy)methane	<10
Bis(2-chloroethyl)ether	<10
Bis(2-chloroisopropyl)ether	<10
Bis(2-ethylhexyl)phthalate	<10
4-Bromophenylphenyl ether	<10
Butyl benzyl phthalate	<10

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90-1B

LAB NO.	90-5387
SAMPLE IDENTIFICATION	140101-292
DATE REPORTED	03/29/90
SAMPLE SUBMITTED	03/08/90
SAMPLE DATE	03/06/90
SAMPLE TIME	1320

EPA METHOD 625

BASE NEUTRAL EXTRACTABLES	ug/l
2-Chloronaphthalene	<10
4-Chlorophenylphenyl ether	<10
Chrysene	<10
Dibenzo(a,h)anthracene	<10
1,2-Dichlorobenzene	<10
1,3-Dichlorobenzene	<10
1,4-Dichlorobenzene	<10
3,3-Dichlorobenzidine	<10
Diethyl phthalate	<10
Dimethyl phthalate	<10
Di-n-butyl phthalate	<10
2,4-Dinitrotoluene	<10
2,6-Dinitrotoluene	<10
Di-n-octyl phthalate	<10
Fluoranthene	<10
Fluorene	<10
Hexachlorobenzene	<10
Hexachlorobutadiene	<10
Hexachloroethane	<10
Indeno(1,2,3-cd)pyrene	<10
Isophorone	<10
Naphthalene	<10
Nitrobenzene	<10
N-Nitrosophenylamine	<10
N-Nitrosodi-n-propylamine	<10
Phenanthrene	<10
Pyrene	<10
1,2,4-Trichlorobenzene	<10

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	90-1B	90-1A	DUPLICATE OF 90-1B	EQUIPMENT BLANK
LAB NO.	90-5387	90-5388	90-5389	90-5390
SAMPLE IDENTIFICATION	140101-292	140101-291	140101-293	140101-294
DATE REPORTED	03/29/90	03/29/90	03/29/90	03/29/90
SAMPLE SUBMITTED	03/08/90	03/08/90	03/08/90	03/08/90
SAMPLE DATE	03/06/90	03/06/90	03/06/90	03/06/90
SAMPLE TIME	1320	1135	1335	1400
Volatile Organic Contaminants	ug/l	ug/l	ug/l	ug/l
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0
Chloromethane	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	<0.50	<0.50	<0.50	<0.50
Bromomethane	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	1.0	1.0	1.1	<1.0
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	85	102	83	<1.0
Chloroform	<1.0	<1.0	<1.0	8.8
Bromochloromethane	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	<0.50	<0.50	<0.50	<0.50
1,1-Dichloropropene	<1.0	<1.0	<1.0	<1.0
Benzene	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	<0.50	<0.50	<0.50	<0.50
Trichloroethene	14	14	14	<0.50
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0
Dibromomethane	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	385	407	363	<0.50
1,3-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	8.1	10	6.8	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0

cc: Envirocon, Livingston.

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	90-1B	90-1A	DUPLICATE OF 90-1B	EQUIPMENT BLANK
LAB NO.	90-5387	90-5388	90-5389	90-5390
SAMPLE IDENTIFICATION	140101-292	140101-291	140101-293	140101-294
DATE REPORTED	03/29/90	03/29/90	03/29/90	03/29/90
SAMPLE SUBMITTED	03/08/90	03/08/90	03/08/90	03/08/90
SAMPLE DATE	03/06/90	03/06/90	03/06/90	03/06/90
SAMPLE TIME	1320	1135	1335	1400
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l	ug/l	ug/l
Ethylbenzene	<1.0	<1.0	<1.0	<1.0
m+p-Xylene	<1.0	<1.0	<1.0	<1.0
o-Xylene	<1.0	<1.0	<1.0	<1.0
Styrene	<1.0	<1.0	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0
Bromobenzene	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0
n-Propylbenzene	<1.0	<1.0	<1.0	<1.0
2-Chlorotoluene	12	5.9	<1.0	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	0.50	0.55	0.50	<0.50
n-Butylbenzene	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0
Naphthalene	1.5	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0

REMARKS: Sample was properly preserved and in specified container. Sample was analyzed according to EPA method 502.2.

cc: Envirocon, Livingston.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER ANALYSIS

PROJECT: Livingston / BN

	90-1C	EQUIPMENT BLANK Duplicate
LAB NO.	90-5391	90-5390
SAMPLE IDENTIFICATION	140101-295	140101-294
DATE REPORTED	03/29/90	03/29/90
SAMPLE SUBMITTED	03/08/90	03/08/90
SAMPLE DATE	03/06/90	03/06/90
SAMPLE TIME	1500	1400
Volatile Organic Contaminants	ug/l	ug/l
Dichlorodifluoromethane	<1.0	<1.0
Chloromethane	<1.0	<1.0
Vinyl chloride	<0.50	<0.50
Bromomethane	<1.0	<1.0
Chloroethane	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0
1,1-Dichloroethene	<0.50	<0.50
Methylene Chloride	<1.0	<1.0
trans-1,2-Dichloroethene	1.9	<1.0
1,1-Dichloroethane	<1.0	<1.0
2,2-Dichloropropane	<1.0	<1.0
cis-1,2-Dichloroethene	184	<1.0
Chloroform	<1.0	7.8
Bromochloromethane	<1.0	<1.0
1,1,1-Trichloroethane	<0.50	<0.50
Carbon Tetrachloride	<0.50	<0.50
1,1-Dichloropropene	<1.0	<1.0
Benzene	<0.50	<0.50
1,2-Dichloroethane	<0.50	<0.50
Trichloroethene	20	<0.50
1,2-Dichloropropane	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0
Dibromomethane	<1.0	<1.0
Toluene	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0
Tetrachloroethene	327	<0.50
1,3-Dichloropropane	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0
Chlorobenzene	12	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0

cc: Envirocon, Livingston.

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	90-1C	EQUIPMENT BLANK Duplicate
LAB NO.	90-5391	90-5390
SAMPLE IDENTIFICATION	140101-295	140101-294
DATE REPORTED	03/29/90	03/29/90
SAMPLE SUBMITTED	03/08/90	03/08/90
SAMPLE DATE	03/06/90	03/06/90
SAMPLE TIME	1500	1400
VOLATILE ORGANIC CONSTITUENT	ug/l	ug/l
Ethylbenzene	<1.0	<1.0
m+p-Xylene	<1.0	<1.0
o-Xylene	<1.0	<1.0
Styrene	<1.0	<1.0
Bromoform	<1.0	<1.0
Isopropylbenzene	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0
Bromobenzene	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0
n-Propylbenzene	<1.0	<1.0
2-Chlorotoluene	9.7	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0
1,2,4-Trimethylbenzene	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0
p-Isopropyltoluene	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0
1,4-Dichlorobenzene	<0.50	<0.50
n-Butylbenzene	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0
Naphthalene	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0

REMARKS: Sample was properly preserved and in specified container. Sample was analyzed according to EPA method 502.2.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

Water Analysis

PROJECT: Livingston / BN

90-1B

LAB NO.	90-5387
SAMPLE IDENTIFICATION	140101-292
DATE REPORTED	03/29/90
SAMPLE SUBMITTED	03/08/90
SAMPLE DATE	03/06/90
SAMPLE TIME	1320

EPA METHOD 608

PESTICIDES AND PCB'S	ug/l
Aldrin	<0.05
alpha BHC	<0.05
beta BHC	<0.05
delta BHC	<0.05
gamma BHC	<0.05
Chlordane	<0.10
4,4'-DDD	<0.10
4,4'-DDE	<0.05
4,4'-DDT	<0.10
Dieldrin	<0.05
Endosulfan I	<0.10
Endosulfan II	<0.05
Endosulfan sulfate	<0.10
Endrin	<0.05
Endrin aldehyde	<0.10
Heptachlor	<0.05
Heptachlor expoxide	<0.10
Toxaphene	<1.0
PCB-1016	<1.0
PCB-1221	<1.0
PCB-1232	<1.0
PCB-1242	<1.0
PCB-1248	<1.0
PCB-1254	<1.0
PCB-1260	<1.0

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ENVIROCON
PO BOX 8243
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PROJECT: Livingston / BN

Water Analysis

90-1B

LAB NO.	90-5387
SAMPLE IDENTIFICATION	140101-292
SAMPLE SUBMITTED	03/08/90
SAMPLE DATE	03/06/90
SAMPLE TIME	1320
	mg/l
Total Petroleum Hydrocarbons	0.4

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Water Analysis

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PAGE 1

90-1B

LAB NO.	90-5387
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SAMPLE DATE	03/06/90
SAMPLE TIME	1320

Dissolved:	mg/l
Arsenic	<0.005
Barium	<0.1
Cadmium	<0.001
Chromium	<0.02
Lead	<0.01
Mercury	<0.001
Selenium	<0.005
Silver	<0.005

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

EPA WATER SUPPLY QUALITY
CONTROL SAMPLE

Volatile Organic Contaminants

PROJECT: Livingston / BN

PARAMETER	True Value, ug/l	P (%)	Range for P (%)
Bromochloromethane	5.0	108	60-140
Chloroform	5.0	65	60-140
Carbon tetrachloride	5.1	83	60-140
Trichloroethene	5.0	90	60-140
1,2-Dibromoethane	5.0	110	60-140
1,1,1,2-Tetrachloroethane	4.9	80	60-140
Tetrachloroethene	5.0	75	60-140
1,2-Dibromo-3-chloropropane	5.0	112	60-140
1,3-Dichlorobenzene	5.0	80	60-140

P = Percent recovery measured.

This EPA Quality Control sample was analyzed with your lab no.s 90-5387 thru 90-5391 with the above results.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

EPA QUALITY CONTROL SAMPLE

Volatile Organic Contaminants

PROJECT: Livingston / BN

PARAMETER	True Value, ug/g	P (%)	Range for P (%)
Bromochloromethane	0.025	78	60-140
Chloroform	0.025	61	60-140
Carbon tetrachloride	0.025	84	60-140
Trichloroethene	0.025	88	60-140
Tetrachloroethene	0.025	73	60-140
1,1,1,2-Tetrachloroethene	0.025	87	60-140
1,2-Dibromoethane	0.025	88	60-140
1,3-Dichlorobenzene	0.025	90	60-140
1,2-Dibromo-3-chloropropane	0.025	87	60-140

P = Percent recovery measured.

This EPA Quality Control sample was analyzed with your lab no.s 90-5385 thru 90-5386 with the above results.

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

WATER SEMIVOLATILE SURROGATE RECOVERY

PROJECT: Livingston / BN

SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#
90-5387	102	87	110	47	38	32

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(35-114)
S2 (FBP) = 2-Fluorobiphenyl	(43-116)
S3 (TPH) = Terphenyl-d14	(33-141)
S4 (PHL) = Phenol-d5	(10-94)
S5 (2FP) = 2-Fluorophenol	(21-100)
S6 (TBP) = 2,4,6-Tribromophenol	(10-123)

Column to be used to flag recovery values with an asterisk

*Values outside of contract required QC limits

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

QUALITY ASSURANCE SPIKE ANALYSIS

PROJECT: Livingston / BN

CONSTITUENT	Spike Amount, ug/l	P (%)	Range for P (%)
1,1-Dichloroethene	5.0	84	60-140
Benzene	5.0	112	60-140
Toluene	5.0	116	60-140
Trichloroethene	5.0	100	60-140
Chlorobenzene	5.0	102	60-140

Lab #90-5391 was spiked with the
following constituents with the
following results.

p=percent recovery measured

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ENVIROCON
PO BOX 8243
MISSOULA MT 59807

EPA WATER POLLUTION QUALITY
CONTROL SAMPLES

PROJECT: Livingston / BN

PARAMETER	True Value, ug/l	P (%)	Range for P,Ps (%)
Heptachlor	2.0	77.5	42-122
Aldrin	2.0	85.0	34-111
DDE	2.0	108.0	30-145
Dieldrin	2.0	108.0	36-146
DDD	10.0	68.5	31-141
DDT	10.0	61.8	25-160
Beta-BHC	2.0	68.0	17-147
Heptachlor Epoxide	2.0	74.8	37-142
Endosulfan I	2.0	73.0	45-153
Endosulfan II	10.0	53.0	D-202
Endrin Aldehyde	10.0	49.7	1.19-15.4

P, Ps = Percent recovery measured.

This EPA Reference sample was analyzed with your
Lab no. 90-5387.